NO. 12

DECEMBER . 1948

The physical properties of Orlon, Du Pont's new synthetic fiber, are described in detail in an are de-Commerce R interesting article starting on Page 40.

L. U. N. C

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BANA 185 CARLTON YARN MILLS, INC.



FINE COMBED YARNS

CHERRYVILLE, N.C.

Precision Research Corp. Charlotte, W. C.

October 12, 1948

Gentlemen;

In reply to your recent inquiry with reference to the Precision Front Roll Oller Device, we are pleased to advise that we have been fully equipped for quite a few years and consider them so valuablo that we put them on our new spinning frames before we start operation.

Besides power saving, we find we do not have worm necks because of lack of lubrication.

Wo also have eliminated daily oiling and are now filling these lubricators once every 10 days.

Another important feature is that this device eliminates oil from running out the sides of the bearing and getting on the yarn. Upkeep is almost nothing.

You may use this letter to help in your sales.

ANOTHER

PRECISION RESEARCH CORPORATION

MPROVEMENT

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Very truly yours,

ME Leak

M. E. Seals, Supt.

SIX-STAR PERFORMANCE!





a Must For Weaving Dayon Dayon

- The first pick tension shuttle eye is a must for all filament rayon weaving.
- The Draper first pick tension shuttle eye is made for use in shuttles on all makes of automatic looms.
- · There is a first pick tension shuttle eye to meet all conditions.

The Draper first pick tension shuttle eye is the best in the field—proven by the fact that it is used in nearly all filament rayon mills.

DRAPER CORPORATION

The World's largest manufacturer of automatic loom shuttles.



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Established 1828

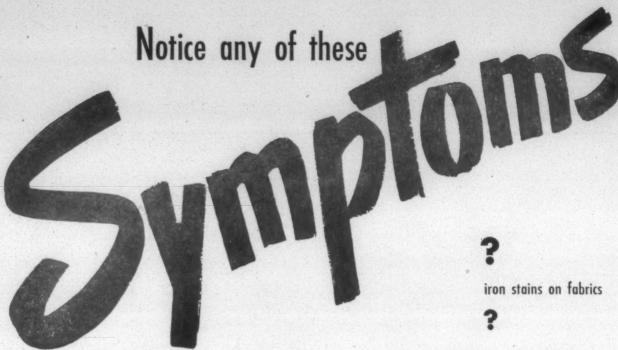
Established 1838

Established 1838

Established 1838

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EUGENE G. LYNCH, 80 FEDERAL STREET, BOSTON 10, MASS. T. HOLT HAYWOOD, WINSTON-SALEM, NORTH CAROLINA



They may mean that there is dissolved iron in the water, picked up, perhaps from corroded pipe lines. They mean *trouble*—but trouble which can easily be corrected by Threshold Treatment with Calgon*.

Calgon not only reduces the iron content of the water, but also gets at the source of the trouble by inhibiting corrosion. Scale formation is prevented, thus eliminating still another source of trouble in water supply systems.

Full information on Threshold Treatment of textile plant water supply systems is contained in the booklet "Calgon Data for the Textile Chemist." We will be glad to send you a copy, or to give you full information on any Calgon application.

low efficiency of peroxide bleach

3

dull shades of dyed fabrics

3

clogged pipes in water supply system

?

red water on Monday mornings

?

*T.M. Reg. U.S. Pat. Off.



calgon, inc.

A SUBSIDIARY OF HAGAN CORPORATION

HAGAN BUILDING



Armstrong's Cork Cots save you money in these ways:

1. Cork roll coverings are low in initial cost. 2. Cork cots reduce assembly time as much as 50% because they are seamless and ready glued. 3. Cork cots have a long service life.

The extra "grip" of Armstrong's Cork Cots drafts high quality yarn. Their extra friction also carries clearer waste well back onto the clearer boards, so there's no danger of waste's being nipped into the work. Thus clearer picking is minimized and the number of slubs is reduced.

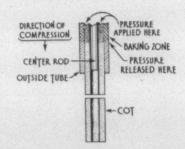
Cork also reduces clearer waste as much as fifty per cent.

The extra resilience of Armstrong's Cork Cots provides quick recovery from most laps and hard ends. And because these cots are extruded, they have no hard or soft spots to grip the yarn unevenly.

Armstrong's Cork Cots retain their spinning properties during a long initial service life. They can be rebuffed when necessary as many as three or four times.

Ask your Armstrong representative for facts and figures on Armstrong's Cork Cots. Or write today to Armstrong Cork Company, Textile Products Department, 8212 Arch St., Lancaster, Pa. Cork cots are available for export.

Extrusion Process Produces Seamless Cork Cots



Armstrong's Cork Cots have no structural weakness to cause premature breakdown. Each cot is uniform in density from inside to outside, from end to end. Each compresses evenly, spins stronger yarn.

ACCOTEX IS A REGISTERED TRADE-MARK.

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Bahnson engineering service is at your service available for on-the-job analysis, and to make recommendations, and figure costs in terms of installation, maintenance and resultant savings in production, through the use of proper air conditioning equipment. Bahnson engineered installations are now serving to meet every known textile air conditioning need.

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INDUSTRIAL UNITS

End view of industrial type unit showing flat top. These units are designed for general industrial use under normal atmospheric conditions.



TEXTILE UNITS

End view of textile mill unit showing peaked top especially designed to eliminate frequent cleanings and to offer outstanding protection against humidity.

THIS SMART-LOOKING SLIMLINE

fixture offers you more than just sleek beauty . . . it also offers a genuine "Skilled Lighting" unit for use with the new high efficiency SLIMLINE Lamps. Assures extra long service life with minimum maintenance.

Typical of Wheeler engineering thoroughness is the exclusive auxiliary lamp support at center of the fixture to prevent vibration of the 8 foot lamps. Fixture channel is in one piece . . . available in either baked enamel or Wheeler tripleguarded vitreous porcelain enamel finish. Reflectors are furnished in vitreous porcelain enamel finish only.

TWO TYPES:

The new Wheeler SLIMLINE is made for regular industrial applica-

tion or for textile mill application. Textile mill units have peaked channels to prevent accumulation of fly, lint, dust and moisture.

HIGHEST EFFICIENCY

SLIMLINE lamps operate at the highest efficiency of any lamps. They start instantly . . . no special ballasts needed. If increased intensity is desired, 300 MA ballast is available to replace 200 MA ballast using same lamps.

EASIEST TO HANDLE

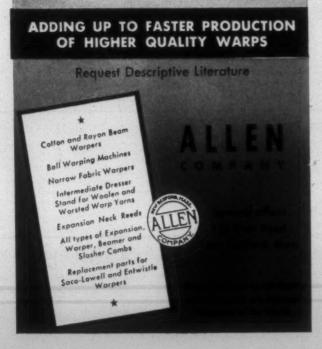
SLIMLINE fixtures have only 2 sockets . . . lamps have only 1 terminal pin in each end. Only two 8 foot lamps for a double-length fixture. Get all the facts on the extra value of these new SLIMLINE Units. Write to Wheeler Reflector Company, 275 Congress St., Boston 10, Massachusetts.

Distributed Exclusively Through Electrical Wholesalers



MADE BY SPECIALISTS IN LIGHTING POLICE





operation.

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Moving - Erecting - Exporting General Overhauling

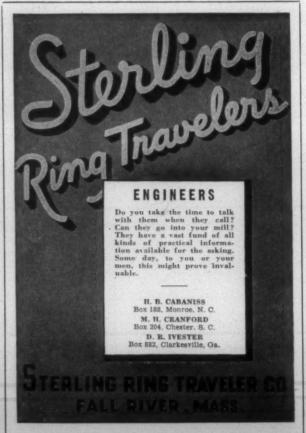
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ALL TYPES OF PICKER APRONS
AND BEATER LAGS

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DO YOU KNOW? By Using BEMIS TITE-FIT TUBING

YOU

REDUCE labor and material costs, because you:

ELIMINATE handling heavy bales of burlap.

ELIMINATE time required to open bales and remove bale coverings.

ELIMINATE time required to cut burlap into sheets. **ELIMINATE** using more burlap than necessary.

ELIMINATE all hand sewing.

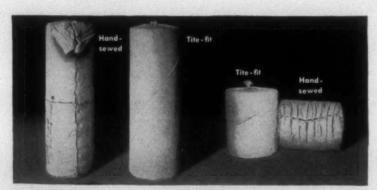
IMPROVE the appearance of your rolls.

YOUR CUSTOMERS

packages that are easy to handle, because there's a handy ear on each end.

SAVE TIME as TITE-FIT TUBING is easily and quickly removed. Just untwist wire tie at one end and slip tubing off.

ELIMINATE chance of cutting into contents and damaging goods, as no cutting of sewing thread or goods is necessary.



This versatile tubing fits almost any shape and a wide range of package sizes. One roll may cover many different diameters and lengths neatly, without waste because TITE-FIT TUBING has stretch in both directions.



BEMIS BRO. BAG CO. Brooklyn 32, New York Canadian Bag Co., Montreal, and the Ontario Bag Co., Pert Colborne, Ontario, are licensed manufacturers of TITE-FIT TUBING in Canada.

Bemis Bro. Bag Co. 5114 Second Ave., Brooklyn, N.Y. Send descriptive folder on TITE-FIT TUBING Send sample. Our packages are approximately inches in circumference. (Please specify) Name

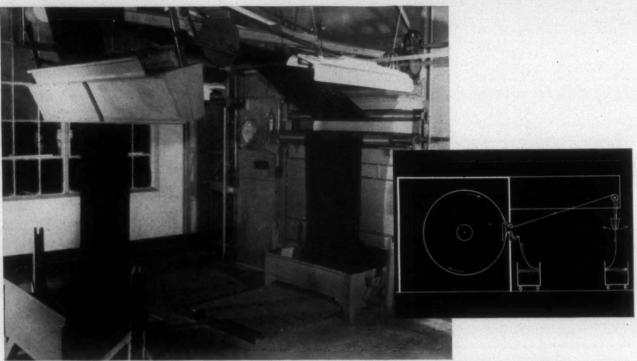
Street Zone State

Firm



looking for new ideas

IN DRYING FOR
YOUR FINISHING DEPARTMENT?



Investigate the PROCTOR SUCTION CYLINDER DRYER

A recent introduction to the field of drying equipment for the finishing plant—the Proctor suction cylinder dryer is proving to be a versatile system. This machine was first used for the drying of tricot fabrics and has since been adapted to the drying of a variety of finishes, including rayon and silk prints. In one silk and rayon print goods mill this dryer has completely broken a production bottleneck by reducing drying time from one hour to five minutes. In addition, it cut drying from a three man to a one man operation.

As the name implies, the system operates on the principle of suction. Cloth is held against a scrim cloth covered surface of a perforated cylinder by a holding down blanket of very open mesh. Air flow in the dryer is through the cloth to the center of the cylinder. Cloth travels around with the revolving cylinder being fed and discharged at the same location.

The fact that the machine may be readily reversed is a feature that is important to the finisher of print goods. If an imperfection in the print of the goods is discovered as it is about to enter the dryer, the operator can simply press the reverse switch and the drum reverses, discharging the goods from the dryer without allowing the material to continue through the dryer. This prevents the imperfection in the print from becoming permanently set in the finish.

This modern system may well fit into your finishing department. Only careful study of your cloth and output requirements will reveal an intelligent answer. If you are looking for new ideas for your finishing department—you'll find this worth investigating.

PROCTOR & SCHWARTZ · INC ·

679 TABOR ROAD . PHILADELPHIA 20 . PA .



Here's the companion piece to Southern States' Ball Bearing Comb Box . . . the Ball Bearing Off-End Stand! This new Stand is designed to provide smoother and completely leak-proof operation of your Comb Stocks. It is available for all current makes of cotton cards.

A completely sealed bearing unit, this new stand—when used in combination with the Southern States Ball Bearing Comb Box—eliminates the possibility of oil damage at the front of the card. While adjustments can be made at the Comb Box, the new Ball Bearing Stand will correct minor misalignment of the Comb Stock.

Southern States makes available to you now either separate unit or combination replacements of your old, worn-out comb boxes, comb stocks, and off-end stands. Purchase them individually or take advantage of complete replacement by ordering the three units at one time. Specify make of cotton card when ordering.

Replace old sleeve-type bearings with the new Southern States Ball Bearing Off-End Stand. Adaptable to any current make of cotton card, this efficient unit is completely sealed, requiring a minimum of attention. Simply and quickly installed, it is available for either right—or left—hand mounting and can be reversed right in your cardroom! You can insure more accurate comb setting—retain this accuracy for the life of the bearing.

Southern States



Equipment Corp.

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Largest Manufacturer of Cast-Tooth and Cut-Tooth Gears in the South

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Eliminates credit losses; makes CASH available as shipments are made; makes possible increased sales volume, without increased fixed invested capital.

Faster and greater turnover should yield increased profits without credit risks.

Write today for details.

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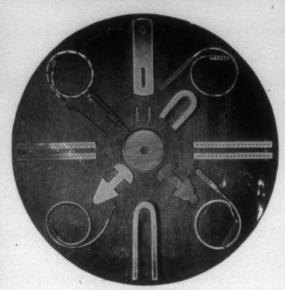
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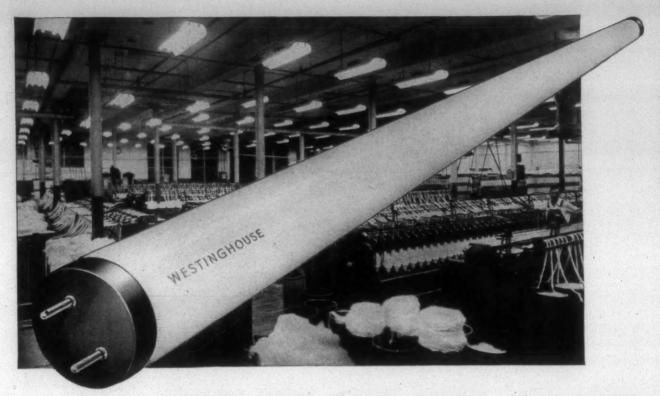
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Manufacturers of

Warp Sizings for Cotton, Wool, Synthetic Fibers Distributors For Leading Chemical Producers of:

TEXTILE CHEMICALS



BETTER LIGHT MEANS BETTER PRODUCTION

YOU CAN BE SURE .. IF IT'S

Westinghouse THE NAME YOU KNOW IN Lamps

You naturally want the best fluorescent lamps available to keep your lighting system operating at peak efficiency. That's why more and more textile mills are using Westinghouse fluorescent lamps. Westinghouse lamps are a quality product, subjected to 486 tests and inspections from raw material to finished product.



When you use Westinghouse fluorescent lamps, you can be sure of uniformity, long life and high efficiency—the three important advantages you need to get the most out of your lighting system. So the next time you need lamps, specify Westinghouse. Lamp Division, Westinghouse Electric Corp., Bloomfield, N. J.

Send for free booklet A-4759 "A Practical Guide to Westinghouse Fluorescent Lamps and Equipment."

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knows metal turning as few men know it. Since he offers the largest complete line of lathes available from one manufacturer, his unbiased advice on the selection of the proper type and size for any specific use can be relied upon. Call him today without obligation.

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245 SPRING ST., S. W., P. O. BOX 5105
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FARQUHAR MACHINERY CO. 720 W. BAY ST., PHONE 4-6781



... WITH A LEBLOND HEAVY DUTY ENGINE LATHE

Full power, ease of operation, and long life accuracy . . . that's what you get when you buy a LeBlond heavy duty engine lathe. The LeBlond name on the head-stock is your assurance of years of satisfaction and profitable

metal turning. You can't buy a finer lathe. Built in 8 swing sizes—12", 14", 16", 20", 25", 32", 40", and 50"—with all the experience and skill acquired in over 60 years of manufacturing.

compare . . . and you'll buy LeBlond with these important advantages:

- All spindle speeds controlled by simple shift levers.
- Chrome nickel alloy gears throughout headstock.
- 3-bearing spindle.
- Hardened and ground steel bed ways front and rear.
- One-piece apron with positive jaw feed clutch.
- Single lever controls both length and cross feed.
- Thrust-lock tailstock, with worm and rack construction, offers full length bearing for spindle.

For complete and detailed information on these or any other lathes in the complete LeBland line, call or write your LeBland distributor. The R. K. LeBland Machine Tool Co., Cincinnati 8, Ohio.



Are Your Ducks in these Rows?

MORE PRODUCTION

AT LESS COST

Here's how you can get lined up to meet present day requirements of volume textile production.

With the help of one of the South's oldest and most experienced sheet metal plants you can gear your preparatory machinery to modern competition. You can insure uninterupted production right from the start with precision made sheet metal parts. You can rely on quality products made and delivered with prompt dependable service.

You can realize substantial savings.

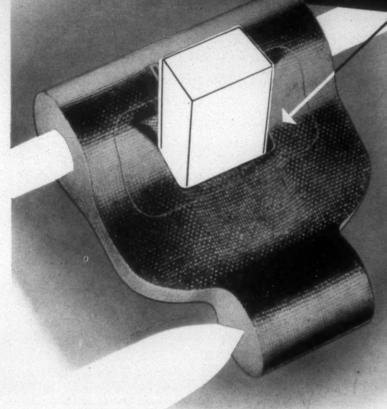


Simply write, wire or phone

GASTONIA TEXTILE SHEET METAL WORKS, Inc.

A SHEET METAL WORKS SERVING TEXTILE MILLS

Built-in softness



... provides proper cushion to the shuttle point contact

The section around the picker stick hole in all Dayton Drop Box Pickers is built with extra tough wearing compositions to take the hammerings of the stick without wear. This is one of the special "3-Point Density Control" Dayton features which results in a picker with the highest degree of efficiency known. Other features include an extremely hard bearing surface around the spindle hole to prevent excessive wear. To protect the shuttle, materials with high resiliency are built into the contact area. These features prevent shuttle point loosening and assure a perfect throw. If you want cleaner, faster production at the lowest cost per loom hour of operation, equip your weave room with Dayton Thorobred Pickers, For additional information write. The Dayton Rubber Company, Textile Products Division, Woodside Building, Greenville, S. C.

Only Dayton Pickers are made to these THREE specifications



I HARD AT THE SPINDLE HOLE.

A hard composition bearing surface is "built in" around the spindle hole of Dayton Pickers. Daytons won't wear egg-shaped. No lubrication is required. Give extra long service.



2 SOFT AROUND PICKER STICK

HOLE. The exact amount of cushion is provided at the picker stick contact point to absorb the terrific impacts. Less wear on the stick and longer life for the picker.



3 STILL SOFTER AT SHUTTLE

CONTACT. A still softer composition is used at the shuttle contact point. This eliminates shuttle point loosening, helps assure a perfect throw throughout the life of the picker.

Dayton Rubber



Questions, answers, comments and other material submitted by the readers for use in this column should be addressed to Editors, TEXTILE BULLETIN, P. O. Box 1225, Charlotte 1, N. C. All material will be edited properly before publication.

IN OUR OWN BACKYARD, TOO

Sirs:

Anything wrong with Cramerton ginghams? I think they look pretty good. Next time we get you to Cramerton, we must have you bring along whoever conducts "the bulletin board." I'm not complaining, but couldn't resist picking this one up.

John Harden
Director of Public Relations
Burlington Mills Corp.
Greensboro, N. C.

¶ Mr. Harden, shame on us, refers to a listing of gingham manufacturers carried in our October issue at the request of another correspondent.—Eds.

PLEASED TO DO SO

Sirs:

Some years ago when I was general superintendent of Sayles Biltmore Bleacheries, Inc., at Biltmore, N. C., we received the [SOUTHERN] TEXTILE BULLETIN. Kindly advise your present subscription rates and if you have a recent copy available, please send it to me.

William F. Odom Technical Advisor William L. Barrell Co., Inc. 40 Worth Street New York 13, N. Y.

¶ Subscription rates to this journal are \$1.50 for a one-year subscription, and \$3 for a three-year subscription, same as before the war, but how long we can keep it up is a question.—Eds.

THE BOOK DEPARTMENT

Sirs:

Please send us a copy of your book, Clark's Weave Room Calculations by W. A. G. Clark.

R. E. Ross Executive Supervisor Kurt Salmon Associates, Inc. Consulting Engineers 3000 Albemarle Street Washington 8, D. C.

Sirs:

We have your 1920 edition and the second edition published in 1926 of Clark's Weave Room Calculations. Our students find this book most valuable in their weave room calculations and several have asked whether they might obtain a copy to keep. We only have the two copies in our library. Please advise us if the book is now available, either in the second edition or in a new revised edition.

L. E. Parsons, Head Textile Engineering Department Texas Technological College Lubbock, Tex.

Sirs:

Kindly send to the attention of our textile department three copies of your Clark's Weave Room Calculations.

Bunge Corp. 42 Broadway New York 4, N. Y

¶ After working for the better part of a year, the author has completed a partial revision of his book. Since exhaustion of the second edition there have been many requests for this book from men actively engaged in the manufacture and sale of cotton goods, and a large number of increasingly urgent requests from textile school students and professors. The latter are primarily interested in the first part of the book, that dealing with cotton cloth calculations, and to meet their needs this part is being printed separately without waiting for completion of the enlarged second part. In the revision of the first part there have been included some additional rules and also some further pertinent information, particularly as to loom speeds and the number of looms per weaver. An interesting feature is a table showing for one printcloth of large production details of manufacture in each of 24 separate mills.

The second part of the book will show full particulars (width, weight, ends and picks, and warp and filling yarn numbers) for several thousand cotton cloths, grouped in the tables which cover various sectors of the weaving industry. In the revision there have been added more than 700 additional fabrics, many of which became of importance during World War II. For some 1,900 plainwoven cotton cloths there have been added data as to the BYT (effective yards of yarn per pound of cloth) which serves as the basis of the classification into

groups. Announcement will be made when the two parts of the new third edition become available.—Eds.

Sire.

Please advise me as to when your book on *Spinning Room Calculations* will be available; also any other books you may publish on cotton textiles.

George T. Cole 607 Sixth Street Attalla, Ala.

I Until we were spurred on by the author, A. B. Peterson, assistant superintendent of Pacolet Mfg. Co. at New Holland, Ga., no plans had been made to reprint this book, but new type is now being set and orders on hand will be filled as soon as possible; see above and below for answer to the second part of your question.—Eds.

Sirs

I am interested in obtaining a copy of the latest edition of D. A. Tompkins' Cotton Mill Processes and Calculations, or a recently edited book of this nature. The copy of the third edition of this book published in 1926 is in my possession. At present I am in training in a yarn mill.

J. W. Mitchell, Jr. P. O. Box 115 Grantville, Ga.

¶ Sorry, but we do not have a single copy of the above book left, and have made no plans to reprint it.—Eds.

Sirs:

I am owner of a book published by you and copyrighted in 1922, entitled Remedies for Dyehouse Troubles, by William C. Dodson, B. E. Mr. Ottilio D Alessio of Palisade Piece Dye Works, Inc., North Bergen, N. J., would like to obtain a copy of this book, if one is available. Will you please advise Mr. D'Alessio whether or not you can furnish him with a copy?

Max W. Fischer Northern Dyeing Corp Washington, N. J.

¶ Again, sold out. At the present time we do not plan to reprint the book.—Eds.

Sirs:

Would like to secure copies of the book, Practical Loom Fixing, by Thomas Nelson;

Rayon Reports

epared Monthly by American Viscose Corporation, New York, N.Y.

DECEMBER, 1948

AVISCO consumer service provides basic information on Rayon to the public

Because rayon is a comparatively new textile fiber, large segments of the public still do not know as much about it as they should. To counteract this situation American Viscose Corporation conducts a broad Consumer Service Program, developed by educational specialists to distribute basic information on rayon to the greatest possible number of users.

Schools

To assure that young people get the correct facts about the nature of rayon, Avisco conducts an extensive educational program in the schools. Special material has been created for all age groups through the college level. This includes not only teacher's lesson guides, but leaflets, comic books and motion pictures. Nearly 2½ million of the school population of the country made use of this material during the school year 1947-48.

Women's Clubs

Members of these organizations are leaders in their communities. To keep them abreast of developments in rayon, three program kits are available and widely used. These deal with such subjects as care of rayon and the different rayon fabrics and their use in the wardrobe. From January 1948 to September

1948, 19,769 club chairmen received programs for an estimated 2,000,000 club women.

Press and Radio

To keep the newspaper reading public informed on the progress of rayon, Avisco provides editors and radio commentators with newspaper articles, scripts, mats and leaflets dealing with newsworthy developments. Each week during 1947, an average of 450 newspaper and radio stories were published or broadcast.

Rural Families

In cooperation with the Department of Agriculture textile experts, Avisco furnished leaflets and technical information to farm women on the use and care of rayon fabrics. This program is made available to 3,000,000 rural women.

New Technical Reports Available

American Viscose Corporation is sponsoring a program of textile research undertaken by the Ellen H. Richards Institute of Pennsylvania State College. The following reports of interest to the textile industry have been published and are available on request:

Evaluation of Uncontrolled Gas Fading Equipment

Strength of Rayon Fabrics

Improved Equipment and Methods for Fluidity – Measurements of Cellulose and Cellulose Acetate

Development of Controlled Equipment for Testing Fastness to Atmospheric Gases

Accelerated Aging Test to Light

Effect of Laundering on Gas Fading Performance of Rayon Fabrics

A Comparison of the Effect on Rayon Fabrics of Various Gases Under Controlled Conditions

MAKE USE OF Avisco® 4-PLY SERVICE

To encourage continued improvement in rayon fabrics. American Viscose Corporation conducts research and offers technical service in these fields:

- 1 FIBER RESEARCH
- 2 FABRIC DESIGN
- 3 FABRIC PRODUCTION
- 4 FABRIC FINISHING

AMERICAN VISCOSE CORPORATION

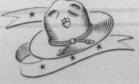
America's largest producer of rayon

Sales Offices: 350 Fifth Avenue, New York 1. N. Y.; Charlotte, N. C.; Cleveland, Ohio; Philadelphia, Pa.; Providence, R. I.

RAYON 20 YEARS AGO

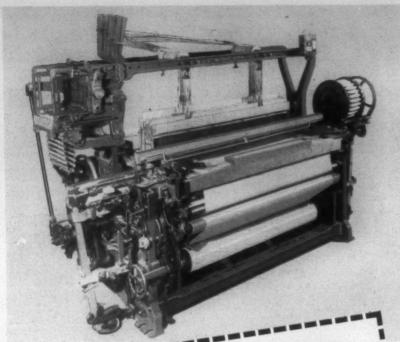


ENGLAND, December 1928— The Textile Machinery and Accessories Exhibition held at Manchester last month stressed machinery used in producing and manufacturing rayon. New machinery for all types of plants was shown. New York, December 1928— The Viscose Company is now advertising new Crown Rayon Brand fabrics for home deco-



Washington, December 1928

After an extended service test a rayon hat cord for use with the service hat, has been adopted and approved as standard by the War Department.



meet TODAY'S rayon demands with the HUNT MODEL HX-100

THE growing demand for rayon fabrics has focused attention of textile executives on the new Hunt Model HX-100 High Speed Rayon Filament loom.

Capable of steady operation at a speed of 182 picks-per-minute, and made for weaving fabrics up to 50-inches wide, this new Hunt Loom is the practical answer to today's need for greater rayon production.

The latest type Hunt Spreader and much heavier loom sides make this loom steadier and sturdier, which allows a higher operational speed than other makes.

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Sirs

We are interested in obtaining for our training class copies of *Practical Loom Fixing (Fifth Edition)*, by Thomas Nelson.

H. D. Adams
Overseer Weave Room
Eagle & Phenix Division
Fairforest Co.
Columbus, Ga.

¶ The fifth edition has been sold out. Type for a new edition is being set, but no definite date of shipment can be given. Price will be \$2 per copy, same as last.— Eds.

UNDER SEPARATE COVER

Sirs

We have been interested in your articles on "The Cotton Mill of Today" [Robert Z. Walker] and have been saving the issues concerning this series. Unfortunately, we have misplaced the issue dealing with the lattice opener and shall appreciate your sending us a copy of the article on this particular machine.

Martin B. Foil Secretary-Treasurer Tuscarora Cotton Mill Mt. Pleasant, N. C.

¶ The lattice opener was discussed in the installment relative to horizontal openers, which appeared in the June issue. Tear sheets have gone forward to Mr. Foil.—Fd:

Sirs:

We were very pleased to see the article by W. W. Bryant on "Freight Elevator Applications" in your July issue. We would appreciate it very much if you would send us three tear sheets of this story.

John E. Sloane Technical Press Service Westinghouse Electric Corp. 300 Fourth Avenue Pittsburgh 30, Pa.

Sirs

Please send me reprints of [Francis Tripp's] articles, "Synthetic Resins And Their Application," Textile Bulletin, Nov. 15 and Dec. 15, 1947. Your courtesy will be greatly appreciated.

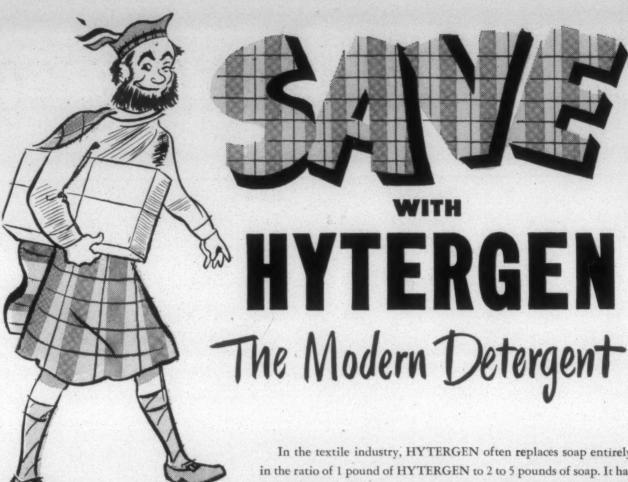
T. J. Suen American Cyanamid Co. Stamford, Conn.

Siec.

Please send us tear sheets of the following articles: "Trends in Treating Cottons and Rayons" (Tripp, Francis, 74, No. 3, 78, 80, 82, 1948).

L. J. Wieschhaus
Market Research Engineer
American Wheelabrator
& Equipment Corp.
Mishawaka, Ind.

¶ This "clipping bureau" service is snow-balling on us, but we are always glad to comply to such requests.—Eds.

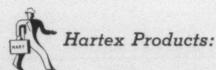


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- 2 Produces a heavy, continuous foam.
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- 6 Dissolves readily in water.
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- 8 Can be used on the most delicate fabrics and colors to good advantage.
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- 10 Is an excellent dispersing agent for dyestuffs.
- 11 Promotes more level dyeing and even shades.

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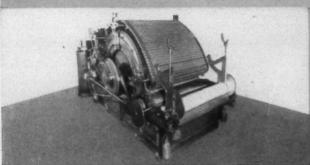
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which will not change in the foreseeable future. Now these same manufacturers are also faced in many instances with a third problem,—PRICE RESISTANCE (customers and the public refuse to buy, or buy less than before because of price). Does this situation represent a "dead end street", or is the problem one that can be solved?

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When adopting one process picking or high draft spin-picking of your old equipment. The condition of your old equipment may be such that it will pay you to ment may be such that it will pay you to change it over. We will gladly make the picking of t When adopting one process change it over. We will gladly make recommendations in this connection. Have you reached a seemingly "dead end street"? If so, let us help you to find a way out through moderniaztion.

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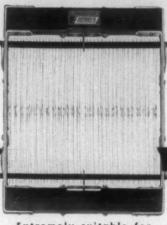
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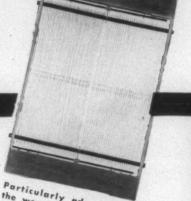
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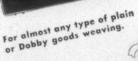
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[Exclusive and Timely News from the Nation's Capital]

Either peace or good feeling can be expected to be shortlived in the 81st Congress. Labor is determined to ram through its 1945 legislative program of "full employment" and "fringe benefits." Truman is so firmly hooked on campaign promises that he cannot easily back away from support. These proposals imply a "managed economy" and government guarantees of jobs and high pay. They are expected near the outset of the session to produce a wideopen split between New Dealers and anti-New Dealers in both parties.

The C.I.O. legislative program contains nothing new. It calls for already defined "full employment and full production economy," with the government controlling prices and adjusting them downward, and boosting wages upward. Also, C.I.O. favors a floor under basic farm prices. It wants essential materials and food controlled, so they will "go to the proper places and proper people, at the proper time."

C.I.O. will demand a minimum wage of \$1 an hour, with low-cost housing at federal expense, higher retirement and jobless benefits, higher taxes for the corporations and wealthy, and removal of about 25 million low-income persons from present tax rolls, with repeal of most excise taxes.

A. F. of L. objectives center on a higher minimum wage, repeal of the Taft-Hartley Law, and focusing all government labor relations in the Department of Labor. It will join C. I. O. in calling for higher "fringe benefits," providing higher retirement and jobless payments.

Higher corporate taxes can be expected, regardless of "authoritative" assurance to the contrary. New Dealers want excess profits taxes restored. Most likely is a boost in blanket corporation taxes, followed by an effort to raise personal income taxes in brackets above \$3,000.

Truman is expected to urge an excess profits tax, but he will meet stiff resistance from the tax committees. Against nothing at all, he's expected to accept a horizontal increase on corporations. An over-all tax increase of about two billion dollars a year is in prospect.

Coalition of anti-New Dealers in both parties on economic proposals is shaping up in both houses of Congress. Truman squelched a McGrath-planned "purge" of Southerners and States' Righters for fear that a coalition at the outset would take over control in the House, and probably in the Senate.

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The House will be coalition-controlled, even with Rayburn as speaker and McCormack as majority leader. It will probably be the stormiest session in many years, and almost certain to bring on an Administration "purge" effort in mid-session.

Outright repeal of the Taft-Hartley Law seems improbable, but there will be amendments. Some changes will be supported unanimously by anti-New Dealers, including changes proposed by the Joint Committee on Labor-Management Relations. The Mediation Service will not be returned to the Department of Labor, as foreseen now.

Truman is irked by labor leaders' claims that he's under a "mandate" from them in his legislative proposals. He's been told plainly by some Congressional leaders that turning over his administration to labor dictation will start a finish fight with coalition forces in Congress.

Handling of labor management disputes will not be turned over by Congress to Secretary of Labor Tobin. While Tobin wants to emerge as the big labor spokesman of the Administration, he'll probably be given some additional statistical duties, and left on the sidelines by legislative changes that get through Congress.

Armed services want full manpower controls written into any emergency legislation for national security. Labor leaders are prepared to balk unless job benefits, seniority, pension rights, and provisions for housing, are written in, too.

Dewey will be titular head of the G. O. P. for a while, but he is not being consulted by party leaders in Congress. Most returning Senate and House members charge their election loss to Dewey and Brownell in using platitudes instead of selling appeals fitted to the market.

Republican Senate and House members refuse to believe the 80th Congress was a "millstone" that dragged down Dewey. They charge Dewey with failing to defend this Congress, and say they will resist repeal or emasculations of their measures.



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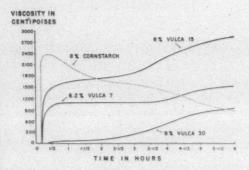


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of swelling of the three grades of VULCA starches is indicated by the volume of settled starch, while the corn starch has been completely dispersed, resulting in gelled paste. In as little as three parts of boiling water VULCA 100 will give a fluid suspension, the individual granules swelling approximately only 5 microns. Since VULCA is available in any desired grade, viscosity of a mixture using these starches as a base is subject to rigid control.

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A One-Way Department

Departments of our government are supposed to represent all of the people and it was never intended that any should represent exclusively the interests of either industry or labor or any special group.

The U.S. Department of Labor is now openly and brazenly representing organized labor and doing everything possible to give professional labor leaders absolute and entire control over industry. Under the recently appointed Secretary of Labor, Maurice J. Tobin of Massachusetts, the U. S. Department of Labor has become a "wholly owned" organized labor department and now carries out in every detail all of the functions of a labor lobby.

Organized labor does not need to finance a labor lobby in Washington since Maurice J. Tobin became Secretary of Labor and took over all the functions of a labor lobby. Instead of having a labor lobby which would use its influence with a Secretary of Labor, we now have a Secretary of Labor, whose salary and the expenses of whose department are paid by the public, taking over all the functions of the usual labor lobby.

The following are a few extracts from a newspaper reporter's recent interview with Maurice J. Tobin:

A federal labor law strong enough to override any state-government restraints on unions will be sought by the Truman administration, Secretary of Labor Maurice J. Tobin said.

Tobin wants American workers brought under interstate commerce. If the interstate commerce clause is recognized, as applied to workers, then 80 per cent of them will be governed by the new liberal law

Some labor leaders claim that labor regulations of Texas and a few other states are worse than the union-detested Taft-Hartley Law. Tobin said, "and I hope that the new labor law will be so worded that all workers engaged in employment can be legally considered interstate commerce. In that manner they would come under the jurisdiction of the new federal law

Tobin said he felt that repeal of the Taft-Hartley Law was a mandate of the people who voted Truman back into the White House and elected a Democratic House and Senate.

As long as Maurice J. Tobin is Secretary of Labor, neither the public nor those citizens of the United States, who believing that they are free people and have a right to decide matters for themselves do not join a union, will have any consideration and any standing before the United States Department of Labor.

As matters now stand the taxpayers of the United States are paying the salaries and expenses of a labor lobby which operates as the United States Department of Labor.

Another Northern Incident

In our last issue we called attention to the following item which had appeared in Pennsylvania newspapers:

Sharpsburg, Pa.—An enraged father who believed his five-yearold daughter had been raped burst into the jail here today and fatally shot a 75-year-old, one-legged rag picker after summoning a police sergeant as witness

We commented that if such an incident had happened in the South and certainly if the victim had been a Negro, hundreds of Northern newspapers would have written editorials charging the police sergeant with connivance and demanding a federal anti-lynching law.

We stated that as the incident happened in Pennsylvania, it attracted little attention and no editorials were written. Since our last issue we have noted the following:

Bellaire, Mich., Nov. 24.—Sheriff's officers and state police tonight sought an assailant or assailants who shot an accused rapist to death early today during a ten-mile highway chase. The car hung doggedly behind as its occupant or occupants blasted away

at the truck with a gun, hitting it several times The victim, Gerald Lee, 25, of East Jordan, Mich., was free on bail while awaiting trial in neighboring Charlevoix county on

charges of raping a 14-year-old girl. Mrs. Long of Mancelona, Mich, told police that a "man in a red hat" fired the fatal shot but she could not say whether he was alone in the auto.

Had the Bellaire, Mich., incident happened in the South, and certainly if the victim had been a Negro, Northern newspapers would have described it as a lynching and special writers and staff photographers would have been sent to cover the affair, after which many editorials would have been written, blaming the people of the South and urging the enactment of a federal anti-lynching law.

The fact that the man who did the shooting wore a "red hat" did not cause any comment, but if it had happened in the South and he had worn a white robe or a sheet, many Northern editors would have "foamed at the mouth."

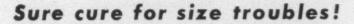
The murder, or lynching (as it would have been called had it happened in the South), took place not a great distance from the home of Mayor Humphries of Minneapolis, who took the lead in forcing a Civil Rights plank in the Democratic Party platform.

Mayor Humphries, who has now been elected to the United States Senate, railed against the South and demanded a federal anti-lynching law, but we doubt that he will pay much attention to the murder which occurred in his own back yard.

In Michigan it is "an unfortunate incident" but if it had occurred in the South it would have been a "lynching."

As this incident did not happen in the South and as the victim was not a Negro, no editorials were written and magazines and newspapers did not rush special writers and staff photographers to the scenes. (See Page 32)



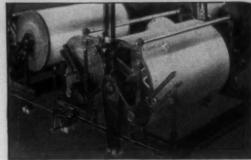


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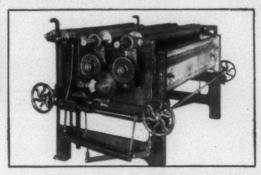
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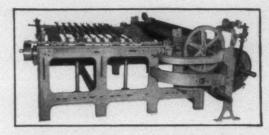
ment and methods can increase production, improve quality and reduce cost.



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Northern editors read the stories, and noting that they happened in Pennsylvania and Michigan, yawned and went about their business.

At about the same time the Bellaire, Mich., incident happened, to which little attention was paid, a Negro was shot to death on a lonely road in Georgia.

His life was insured for a substantial amount in favor of his wife and she was at first arrested and charged with the murder but later released.

The wife claims that the Negro was shot to death by white-robed men but there is no evidence except her statement and the Ku Klux of that section were definitely exonerated.

Northern newspapers which had paid no attention to either the Sharpsburg, Pa., or the Bellaire, Mich., incidents opened their columns for numerous editorial attacks upon the South.

A white man named Goldwasser, who said he was a citizen of Cleveland, Ohio, and a member of the Cleveland chapter of the National Association for the Advancement of Colored People, went to Georgia to take charge of the situation there and give assistance to the widow of the Negro who was murdered by her or by some unknown persons

Cleveland is not more than 150 miles from Sharpsburg, Pa., and about 250 miles from Bellaire, Mich., but Mr. Goldwasser entirely ignored both of those incidents. He was, however, so outraged by what was reported to have happened in Georgia that he did not hesitate to take a round trip of about 2,000 miles to lecture the people of that state.

There always have been and we suppose there always will be, a small group of people in the North who think that their mission in life is to tell the people of the South how to manage their affairs.

Stolen Card Clothing

During the recent dock strike in New York City ten cases of card clothing consigned to Sykes, Inc., at Charlotte, N. C., was stolen. The cases contained 25 cylinders and 25 doffers. There is no market for such goods except textile mills and should the stolen card clothing be offered to any mill, we ask that they telephone or wire Textile Bulletin at once. The F. B. I. is working on the case and should any mill already have purchased the clothing, it can avoid liability by promptly reporting the purchase.

The Wrong Writer

In the Dec. 4 issue of the Saturday Evening Post will be found an article "Wrong Guy" by William B. Mahoney but we feel that the article should have been entitled "Wrong Writer."

The writer evidently had the idea that when a young boy obtained employment in a textile mill for the purpose of learning to be a weaver, there was always somebody whose job it was to browbeat him and make his life as miserable as possible.

Just why there would be such a man or what would be gained by the process he did not say.

William B. Mahoney was absolutely ignorant of textile

mill processes. He referred to a weave room as a "shop," a learner as a "spare hand" and mentioned a "left-leaded" shuttle. The prize paragraph but not much worse than many others, was the one in which he described the action of a weaver in changing the filling in a shuttle as follows:

Halloran picked up a new bobbin, lifted out the old, slipped in the new one, broke the yarn, tied a swift weaver's knot, and watched it run through the screening.

Tying a swift weaver's knot in filling bobbins must have been some stunt and it would have been interesting to see the bobbin run through the "screening," whatever that was.

Even the pictures were unusual. One showed a girl holding a shuttle which was half as wide as the loom and contained several unconnected sections of white filling, whereas the cloth was being woven with pink filling.

William B. Mahoney wanted to say that boys learning to weave were browbeaten and mistreated and the Saturday Evening Post paid him for an article describing a textile mill about which he knew nothing.

Truman Got Less Than Half

"Trading" Truman, the man who won the election for president of the United States by trading with every group, subversive or otherwise, who had any large block of votes, has been pictured as having won an overwhelming victory.

As a matter of fact, less than half of the citizens who voted cast their votes for Harry Truman.

The votes were:

| Truman | | | | | | | | * | | | 24,059,194 |
|---------|----|--|--|--|--|--|--|---|-----|--|------------|
| | | | | | | | | | | | 21,921,005 |
| Thurmon | id | | | | | | | | | | 1,169,240 |
| Wallace | | | | | | | | | | | 1,148,797 |
| Truman | | | | | | | | | 186 | | 139,109 |
| 75 1 | | | | | | | | | | | 48 682 670 |

TEXTILE INDUSTRY SCHEDULE

- Jan. 10-14—Third MATERIALS HANDLING SHOW, Convention Hall, Philadelphia, Pa.
- Jan. 24-28—Ninth INTERNATIONAL HEATING & VENTILATING EX-FOSITION, International Amphitheater, Chicago, Ill.
- Jan. 27—Annual meeting, NATIONAL ASSOCIATION OF FINISHERS OF TEXTILE FABRICS, Hotel Pennsylvania, New York, N. Y.
- Feb. 27-March 4—Committee Week and Spring meeting, AMERICAN SOCIETY FOR TESTING MATERIALS, Chicago, Ill.
- March 7-9—Annual meeting, NATIONAL COTTON COUNCIL, Los Angeles, Cal.
- March 21-25—TEXTILE WET PROCESSING EQUIPMENT & SUP-PLIES EXPOSITION, 71st Regiment Armory, New York, N. Y.
- March 31-April 2—Annual convention. AMERICAN COTTON MANU-FACTURERS ASSOCIATION, Palm Beach-Biltmore Hotel, Palm Beach, Fla.
- May 2-7—INTERNATIONAL TEXTILE INDUSTRIES EXPOSITION, Grand Central Palace, New York, N. Y.
- May 9-13—Fourth NATIONAL TEXTILE SEMINAR, Shawnee Inn. Shawnee-on-the-Delaware, Pa.

 May 10-13—18th NATIONAL PACKAGING EXPOSITION, Atlantic City (N. J.) Auditorium.
- (N. J.) Auditorium.
 May 26-28—Annual convention, TUFTED TEXTILE MANUFACTURERS ASSOCIATION, Atlanta-Biltmore Hotel, Atlanta, Ga.
- June 16-18—Annual convention, SOUTHERN TEXTILE ASSOCIATION, Mayview Manor, Blowing Rock, N. C.
- June 27-July 1—Annual meeting, AMERICAN SOCIETY FOR TESTING MATERIALS, Atlantic City, N. J.
- Oct. 13-16—National convention, AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS, Chalfonte-Haddon Hall, Atlantic City, N. J.
- May 8-12, 1950—AMERICAN TEXTILE MACHINERY EXHIBITION (and Allied Industries', Atlantic City (N. J.) Auditorium, sponsored by National Association of Textile Machinery Manufacturers.



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On open drives where it's possible to install endless belts, Condor Whipcord Endless Belts are "unbeatable."

Endless-wound Whipcords embedded in slow-aging Flexlastics, keep these belts running true and cool at all speeds. They are prestretched during manufacture so that practically no take-up is necessary in operation.

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stretch or shrinkage. These features are important where accuracy in speed and power are necessary to good machine performance.

Condor Whipcord Endless Belts combine high tensile strength, optimum flexibility and accuracy of manufacture. You "Save on the Long Run" that these belts give you. Ask for Bulletin 6869-C. Manhattan's complete line of rubber products for the Textile Industry is consistently dependable—outstanding in quality. Make MANHATTAN your choice.

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Little Things Count

THE EFFECTS OF ASSOCIATION—There are localities in Switzerland, we are told, where the canary is caged with a nightingale, so that it may catch the sweetness of the latter's song and breathe into its notes the harmonious melody that delights all tourists in Europe. It is a demonstration of the power of association. The canary may be trained by a nightingale. So men may make their lives strong, pure, sweet, and holy in thought, word, and deed by unbroken association with those who live on a higher plane.

Character, a World's Need - The world, it is said, is always looking for men and women who are not for sale; men and women who are honest, sound from center to circumference, true to the heart's core. Men and women who know what they are to do and do it; who know their places and fill them well, who will not lie, shirk, or dodge; who are not too lazy to work, not too proud to be poor; who are willing to eat what they have earned, and wear what they have paid for; men and women who are not afraid to say "No" with emphasis and who are not ashamed to say, "I can't afford it."

True To Duty—When the ruins of Pompeii were excavated 1,900 years after the destruction of the city by an eruption of Vesuvius, a Roman sentinel was found standing at his post, sword in hand, in an attitude of defense. He was placed there on duty, and he remained at the spot in the face of that terrible catastrophe, meeting his death in obedience to duty. One's duty requires fullest devotion.—The Commentator, Union Bleachery, Greenville, S. C.

New Cotton Competitor?

As if cotton didn't already face growing competition from synthetic fibers, it now sees another possible competitor looming on the horizon in the broadening commercial cultivation of ramie.

A lot has been said in recent months about ramie, but it now appears actually well on the way to becoming a

commercial product with the planting of thousands of acres in Florida, California and some other states. But it's going to be quite a long time before it can seriously threaten cotton, and probably will first become a more serious competitor of linen, because of its current cost.

Ramie is a perennial plant, which doesn't have to be planted every year; the stalks are cut several times a year, and machines do practically the entire work. At last machines have been successfully developed to decorticate and de-gum the fibers to make them available for spinning; so now ramie seems ready to make its "debut."

But a vast amount of new textile machinery will have to be made and installed in plants before there is any tremendous output of ramie fabrics. The ramie fiber length, ranging from four to 20 inches, makes it impractical to use cotton textile machinery to process it; so there's a huge industrial construction task ahead before ramie can become anywhere near as widespread in its use as cotton. Considering that fact, there may be ground for question as to whether there will be a sound economic incentive to shift from cotton to ramie on any very great scale. But cotton farmers, nevertheless, may be interested to follow these developments in the ramie field. It apparently can be grown successfully in many parts of the South if there should appear a stable market for it.-Greenville (S. C.) News.

Textile Prices

THE course of prices in the textile industry continues to arouse considerable discussion. It is still difficult to convince buyers that prices will not decline even further than they have gone. Each new reduction is hailed as further evidence that more cuts are to be expected and all the more reason for keeping stocks clean and refusing to place orders.

For the buyer, however, it is important to analyze the nature of price cuts now being made and to see these clearly. Buyers must not fall into the glib pattern of some would-be industry experts who speak about "textiles" as though the entire industry operated as a unit. The textile industry is far too complex to have its behavior described in over-all, sweeping phrases—especially in discussions of price trends.

When cotton textile prices were falling, certain rayon prices were rising; when gray print cloth prices were being cut, certain colored yarn fabric prices were being raised; when men's worsted suit prices were rising, those on women's suits were being reduced, etc. The textile market is many markets within a market. Each can often act independently of others and does.

In some instances the apparel price reductions go further than the piece goods cuts. There can be little question that cutters in many fields are beginning to tighten up on their margins just as have the mills. In overalls, for example, denim prices have been held unchanged for several years but the garments are being reduced in price as part of a price war between several major manufacturers. This is all to the good. The belt-tightening all along the line will result in substantially lower prices for the consumer. It will give the retailer the opportunity to promote these lower-priced

It must be recognized by buyers, however, that primary market prices are not going to drop much further—it at all. It is entirely possible that some prices will come up slightly from the lows of last month. Already a few cotton gray goods quotations are slightly above the bottom reached several weeks ago. Cotton yarns have begun to evidence a firming trend after substantial declines. Worsteds and rayons have yet to experience their full decline

Mill stocks have been kept clean in most categories and this alone would prevent any panic price slashing. In addition, costs are still rising, with raw cotton and wool moving up and new labor demands again facing the industry. Mills will hesitate considerably before again dropping prices. Most have fully experienced their declines and are waiting for the distributive levels to catch up so business can move ahead.—Journal of Commerce (N. Y.)



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textile bulletin



VOL. 74

DECEMBER, 1948

NO. 12

SUPERVISORY TRAINING

By W. W. MUSSMAN, Personnel Director, Riegel Textile Corp., Ware Shoals, S. C.

THE building of a good supervisory organization is a problem that exists in every industry today, although probably a good many industries do not realize how important it is. I am very glad to see that the Southern Textile Association realizes the importance of the subject to the textile industry and that it has felt it to be important enough to give it a place on its program. And I am particularly glad to see it on the program of a group of operating people rather than, as it is so often, on the program of a meeting composed of personnel or public relations people.

Coming up from Ware Shoals, naturally I had my mind a little bit on football, too. Certainly we all recognize that football, despite its outstanding ball carriers and pass receivers, is a team game. Modern management methods call for supervisors who can and do function as a management team. With the great expansion that has taken place in the companies of the industry, the operation of a textile plant is not a one-man job. It calls for a group of capable men working together in various levels of a management organization. Supervisors today must get the job done through the co-operation of the people who work for them and must co-ordinate their efforts with those of other supervisors and their superiors.

If supervisors are properly selected, they are going to learn the job of supervision whether they have specific training or not. Most of us who are here today (or shall I say a good many who are here today?) became supervisors—and in our own minds, at least, pretty good ones—without having any training in supervisory work.

If I may be excused for letting my mind travel to football again, if we had two teams coming out here to play this afternoon, assuming the manpower is matched pretty equally, and one team had a coach who had put in a lot of time in training that team and had worked with it and corrected its errors, who had taken movies of the games, perhaps, and showed them to the team the next Monday morning and pointed out its mistakes, and if the other team of equally good material had decided it did not need any particular training because it had a good man as captain whom they thought could call the plays and run the team, I think there would not be much doubt as to which team would win. I think we have in business a very similar problem. Just like the boys who got out there without any coaching and learned to play pretty good football, our supervisors without any training are going to learn how to be pretty good supervisors. With the demands of modern management and modern industry for greater efficiency, however,

we must ask ourselves the question whether we can leave the development of supervisors to the slow, costly method of learning by "trial and error." It seems to me that American industry is rapidly learning that it can better handle its personnel problems (and supervisory training is one of them) by the same careful study that it gives to its production problems.

Requirements of a Supervisory Job

People from various industries seem to agree that the requirements of good supervision are everywhere similar. While I have had relatively little experience in the textile industry, from what I have seen it is true here, too. I should like to outline five areas of supervisory knowledge and skill which seem to be required.

Technical Knowledge—First of all, a supervisor needs a thorough technical knowledge of the work which he is supervising. Not only does he need this knowledge when he first gets the job, but he must continue to acquire that knowledge. The developments in a manufacturing industry require continual, up-to-date information, so that the supervisor may study their application to his own situation.

Responsibility and Authority—Every supervisor should have a clear understanding of the responsibility of the various areas of his supervisory job; and, so that he may carry out that responsibility, he should have a clear understanding as to his authority in specific situations, in order that he may proceed with confidence in dealing with problems as they arise

Skill in Organizing—One of the functions of a supervisor is to plan and organize the work under his supervision. This is true whether it is at the top level of management or at the bottom. One of the tasks of every man in supervision is to learn how to investigate a problem, how to assemble the facts about it, and how to put them in an orderly conduct of his operations.

Skill in Directing—Another area in general supervisory technique is skill in directing the work of others. The soundest plans, whether they are formulated by the supervisor himself or by his immediate superior, may fail if the supervisor has not the ability to get people to go to work and put the plan into effect. He needs to know how to give proper orders and how to instruct people properly.

Skill in Controlling—A final area in which every supervisor must be skilled is control. After a plan has been organized and employees have been directed how to put the

plan into effect, a supervisor needs to control the operation to see that it is being carried out in accordance with the plan that has been laid down.

I should like to sum those up once more: technical knowledge; knowledge of responsibility and authority; skill as an organizer or planner; skill in directing; and skill in controlling. I have intentionally omitted the skill of handling people, on the basis that such skill actually is a part of planning, directing, and controlling. In developing a plan, for example, a supervisor must consider the people involved, as well as machines and materials, and likewise in directing or controlling the operations under his supervision.

Supervisory Training a Line Responsibility

If we can accept this for a moment as an outline of supervisory requirements, let us then consider how supervisory training should be carried on. First, I should like to say that supervisory training is primarily the responsibility of the line organization. It is the supervisor's immediate superior who can do the most to develop that man as a good supervisor. One of the most common errors that has been made in supervisory training has been to assume that the holding of classes in supervisory training by some specialist will automatically produce good supervisors. The development of good supervisors takes a lot more time and effort than a few short courses in supervision. Certainly it is going to take more than six or eight class periods of two hours each for a man to learn a job as difficult as the jobs you men have. The training of supervisors can not be done through short courses here and there in supervision.

I think most of you people would agree with me that you have learned more about the skill of being a supervisor from those men who have been your bosses than you have ever learned from a book or from a series of lectures or conferences. In some instances you have learned from your boss certain ways of handling problems; in other instances you have learned from the mistakes he has made. The key man in the situation is always the supervisor's immediate

Let me take one example. I have sat in on any number of conferences at which the subject of a supervisor's responsibility was discussed. Such discussions have usually been interesting but of no practical application unless they applied to a specific situation. When a superintendent outlines to one of his overseers his responsibility and authority, that means something to the overseer; and I should like to

SOUTH CAROLINA members of the Southern Textile Association, numbering more than 250, were guests of the Clemson College School of Textiles at the group's meeting Nov. 6. Chairman James B. Lybrand, of Mills Mill at Greenville, presided. During the meeting David H. Roberts of Spartan Mills, Spartanburg, was re-elected divisional secretary, and D. O. Freeman of Startex Mills, Tucapau, was named chairman of the weaving section. The meeting was followed by a buffet luncheon arranged by John T. Wigington of Clemson, director of technical service for the Cotton-Textile Institute, Inc.

· recommend that we give more attention to defining each supervisor's authority as much as we can.

Let me digress just a little bit, because I think this subject of responsibility and authority has been one of the most neglected areas of training in supervision and I think what we should do is to devote more attention to defining pretty clearly what authority a supervisor has to act in the situations that are going to be coming up. A man can make a lot of mistakes. He can fail to act because he thinks he does not have the authority to act. He can commit his company to something to which perhaps it does not want to be committed-not by his fault, perhaps, but because he has not been told.

I should like to suggest that there are three degrees of authority: (1) unlimited, in that there is freedom to take whatever action is desirable; (2) freedom to take action but with the necessity of informing the superior as to what action has been taken; and (3) freedom to take action but only after discussion and approval by the superior. It seems to me that we should consider all situations we can foresee in which the supervisor needs authority and tell him in advance which of these three types of authority he has. This is an area of supervisory training which only the immediate superior can carry out.

In emphasizing that the primary responsibility for training supervisors is in the line organization, I do not mean to say that the line organization should not look for or can not find help from a staff department such as the personnel department: A staff department can give help in scheduling training for various supervisors who need it. In some places in my own organization this is being done. In addition, there are certain types of subjects for supervisory training which are most easily handled in group discussions or conferences led perhaps by a specialist in the field. At Riegel we have conducted a series of meetings which have been devoted to case problems in supervisory leadership, and we expect to continue this type of training.

The development of a good supervisory organization, however, can take place only when all the men in the management organization devote at least some attention to the training of their subordinates. A fundamental part of any training is the process of following up and correcting, and no one but the supervisor's superior is in a position to do that. So each overseer is the best man to train his immediate

subordinates.

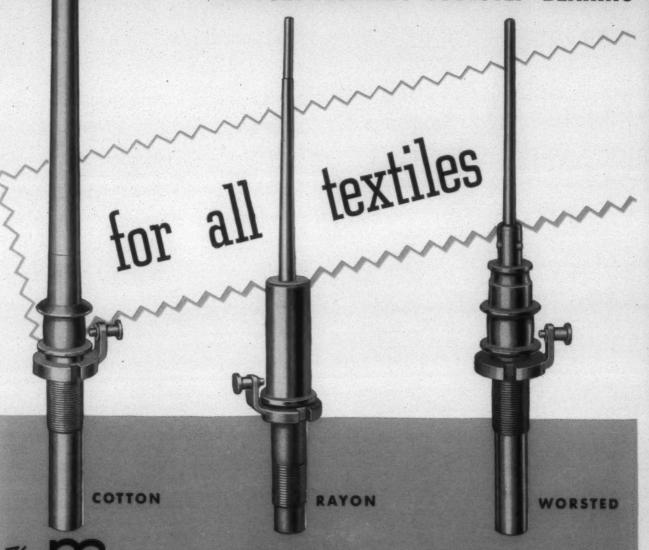
Supervisory Training a Continual Program

Supervisory training is not something we start today and finish tomorrow. It seems to me that it is a continual process. We have not only a problem of training new supervisors as our personnel changes but also the problem of keeping on with the training of present supervisors as the problems of industry change.

It seems to me that we should devote more attention to the training of a new supervisor. One of the most difficult steps for a man to take is from the rank-and-file level to the supervisory level. No longer is the job one of how well he can produce by his own efforts, but now he has to produce through the efforts of other people. A man can make a lot of mistakes when he first becomes a supervisor. If we provide planned training at that time, I am sure that we can make this process a great deal easier and save the new super-

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visor from a good many painful errors. A good many companies today are devoting specific attention to training a man pretty thoroughly at the time when he first becomes a supervisor; and some companies are carrying on what they call pre-supervisory training—selecting men who they think have qualifications for supervisory jobs and giving them some training in what it is all about before they ever get such a job.

Keeping up to date with the problems of the company is something in which all supervisors are interested. To that end, at Riegel we have a weekly conference program which is devoted to the discussion and formulation of company policies as well as other subjects of general interest; each year we discuss the results of the year's operations as covered in our company's annual report; and we are planning

to hold each year a series of conferences on subjects of particular interest to supervisors.

I should like to suggest to you that, when all levels of management devote attention to training, they are building a spirit in the organization that is invaluable. I believe that most people sincerely appreciate the efforts of their superiors to coach them on how to do the job better and become more successful, because in so doing they are not only becoming more valuable to their company but also becoming more valuable to themselves. With that in mind, I should like to leave with you the thought that part of every superior's job, part of every executive's job, is the responsibility of training his subordinates.

Mr. Mussman was one of the speakers on the Nov. 6 program of the South Carolina Division, Southern Textile Association.

Orlon Acrylic Fiber — A New Synthetic

By DR. J. B. QUIG, Assistant Manager, Development Section

Technical Division, Rayon Department, E. I. du Pont de Nemours & Co., Inc.

POR a long time, Du Pont research has been looking for a continuous filament, synthetic fiber having the warm, dry, luxurious hand and dimensional stability of silk in high humidities. We have also been searching for a staple which would have the exceptional bulking power, high thermal insulation and wrinkle recovery possessed by wool. Still another objective has been to develop a fiber with strong attributes which would allow us to make a contribution to the industrial and domestic fabric fields — a fiber which has extraordinary resistance to outdoor exposure, chemicals, micro-organisms and insects, along with high strength, low sensitivity to moisture, good heat resistance and high flex life.

Five years of searching market exploration, exploying a large poundage of Orlon fiber, has convinced us that Orlon is an industrial fiber of the first order. The objective of developing an outstanding industrial fiber has been reached. On the other hand, Orlon continuous filament yarn is the most silk-like synthetic fiber, while Orlon staple is the most wool-like synthetic fiber of which we have knowledge.

Orlon fiber has a combination of properties which will give it a wide diversification of markets and cause it to be suitable for many purposes in which nylon and the rayons will not equal its performance. For one thing, Orlon's resistance to outdoor exposure is so good that we feel that it is the best fiber we know of, natural or man-made, for outdoor uses.

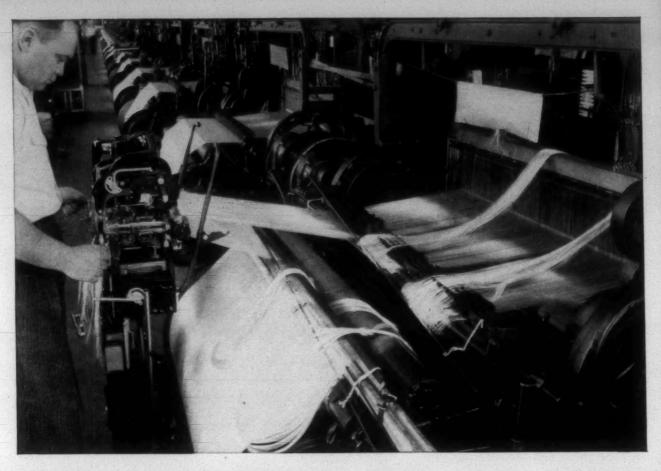
This single salient characteristic of Orlon will extend the frontiers of utility of industrial and domestic fabrics. However, if we pyramid the other attributes of Orlon along with its sunlight resistance—i. e., high dry and tensile strength, high resistance to stretching, high flex life, rapid drying, bonding to resins and rubbers, dimensional stability to heated gases and liquids, resistance to acids and acidic fumes at high temperatures, resistance to insects, molds, mildew, and other microrganisms—then the broad utility and versatility of Orlon as an industrial and domestic yarn can be viewed in the proper perspective.

Since nylon has greater abrasion resistance, retains a greater percentage of its strength in air at higher temperatures, and has a much better resistance to alkalies than Orlon, it is apparent that Orlon will supplement, rather than compete with nylon in the industrial and domestic fabric fields. The trade-mark Orlon does not apply to a single fiber or yarn having a definite set of properties, or made by any definite process, but rather to various types of Orlon acrylic fibers. All of these fibers, to date, have possessed many of the properties of the original Orlon fiber but, in addition, have distinctive characteristics of their own.

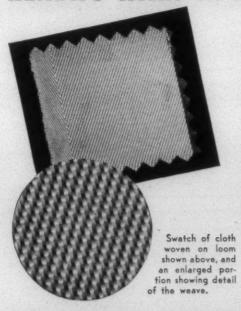
Physical Properties

Let us first examine the physical properties of the type of Orlon fiber which has reached the highest stage of development and which is certain to be produced initially in our Camden, S. C., plant. Orlon is strong and has a good elongation or extensibility. The ratio of loop and knot tenacity to straight tenacity, while not so high as found in nylon, is of a high order. The elastic recovery is good but is not as outstanding as nylon. On the other hand, the modulus or resistance to stretch of Orlon is very much better than that possessed by nylon. While the shrinkage in boiling water is low in comparison with nylon, it should be mentioned that this shrinkage of nylon is not an inherent difference but results from a difference in process. It is evident that Orlon is more hydrophobic than nylon. The specific gravity is closely similar to nylon. It will be seen that cellulosic fibers are approximately 28 per cent heavier per unit volume than Orlon and nylon. The flex life of Orlon is outstanding, while its abrasion resistance is lower than nylon and is in the same range as cotton, which is at present the principal industrial fiber.

With regard to outdoor resistance, Orlon stands in a class by itself. In an outdoor exposure test of yarn, conducted in Wilmington, Del., involving Orlon, silk, nylon,



BARBER-COLMAN PORTABLE WARP TYING MACHINE RENEWS WARP IN LESS TIME THAN OTHER METHODS



Here is a practical example of the savings to be gained from the use of a Barber-Colman Portable Warp Tying Machine in comparison with hand twisting-in or drawing-in. The tabulated data at the right shows that the machine ties in this synthetic warp in less than one-fifth the time formerly required for manual methods. The machine works directly in back of the loom, eliminating any necessity for removing, transporting, and resetting weaving elements. Warps for similar patterns but different color distribution can be tied as well as identical patterns. Machines are made for plain or leased warps, and there is a combination machine that can be changed in a few minutes to tie from either a flat sheet or an end and end lease. See your Barber-Colman representative for specific recommendations to fit your needs.

WARP REPLENISHMENT DATA

100/40/3 Denier - Acetate

6234 Ends

135 Sley by 64 Picks

6 Harnesses

6 Banks of Drop Wires

Preparatory,

Tying-In, and

1 hr. 10 min.

Pull-Thru Time

By Former Manual Method, Warp Replenishment Time was — 5½ to 6 hours

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linen, cotton and viscose process rayon, Orlon retained 77 per cent of its strength at the end of 1½ years after all of the other fibers had completely failed. Exposure tests conducted on natural fabrics in Florida, where effects of ultraviolet light are intense and industrial fumes are absent, have shown that Orlon has excellent resistance to sunlight alone; while other exposures of the same fabrics in the heavy, fume-laden area of Philadelphia have shown the remarkable resistance of Orlon to the combined influence of sunlight, smoke, soot and acidic fumes. These tests have shown that, when the time of exposure is sufficient to cause the rayons to lose 100 per cent of their strength, Orlon has retained 85 per cent of its original strength.

Additional tests, involving Orlon awning fabrics, (painted and Aridyed) versus cotton (painted and vat dyed) fabrics exposed over a year in Florida have also corroborated the great superiority of Orlon over cotton with respect to resistance to ultraviolet light, mildew, molds, and degradation by industrial smoke, soot and fumes.

Orlon has good-to-excellent resistance to mineral acids, fair resistance to weak alkalies, and is not harmed by common solvents, oils, greases, neutral and most acid salts. The alkali resistance of Orlon is adequate in all boil-off, scouring and dyeing operations. Orlon's stability in sodium hypochlorite bleaching is outstanding in comparison with the rayons, cotton and nylon.

The resistance to aerobic bacteria, soil bacteria, fresh and salt water bacteria and insects, including firebrats, carpet beetles, clothes moths, and German cockroaches is excellent. Orlon has been exposed to soil burial tests conforming to A. S. T. M. and O. Q. M. G. specifications and has been compared with sisal, treated and untreated manila and cotton, jute, hemp and nylon. In these tests, Orlon maintained 90 per cent of its original strength and was superior to the other fibers.

The percentage of tenacity retained by Orlon at various temperatures in comparison with the tenacity measured at 77° F. is shown in the following:

Per Cent Tenacity (77° F.) Retained When Tenacity is Measured at the Following Temperatures

| -40° | F. | | | * | 1 | | | | | | | | | | * | 100 | | | 137.5% |
|------|----|--|-------|---|---|---|--|---|-------|-------|---|---|--|--|-------|-----|--|--|--------|
| 167° | F. | | | | | | | 9 | 1 | - | | * | | | | | | | 83.5 |
| 212° | F. | | 1 | | | | | | | 40.00 | 4 | | | | | | | | 73.3 |
| 257° | F. | | | | | - | | | | | | | | | | | | | 67.0 |
| | | | | | | | | | | | | | | | | | | | 51.0 |

The physical properties of Orlon improve at extremely low temperatures, and there is no noticeable rigidity of the fiber imparted. While approximately 50 per cent of the

ORLON is the name given to Du Pont's newest fiber. After a great deal of study by company scientists, a semiworks was built at Waynesboro, Va. Until August, 1945, development work was concerned mainly with determining how Orlon could be used to aid the war effort. By early 1946 the fiber looked promising enough for commercialization, and process development continued. In October of this year a decision was made to build a plant for Orlon production three miles south of Camden, S. C. Construction will begin next Spring, and 18 months will be required to complete the project. The actual plant and utility buildings will cover an area of 20 acres in the 800-acre site.

tenacity is retained at 302° F., the residual tenacity is equivalent to that of cellulosic fibers at that temperature; 100 per cent of the original strength of Orlon is retained after an exposure of 32 days in air at 257° F.

Orlon, like all thermoplastic yarns, shows different degrees of shrinkage in different mediums and fabrics and should be stabilized for the particular end use. Excellent dimensional stability has been attained with domestic and wearing apparel fabrics. The following table shows the behavior of the yarn itself in various mediums and indicates that materially higher temperatures may be employed without excessive shrinkage, when dry heat is employed.

YARN SHRINKAGE

| Medium | Time (Min.) | |
|--------------------|-------------|------|
| Boiling Water | | 1.5% |
| Steam | | |
| 117° C. 10 p. s. i | 20 | 1.3 |
| 134° 30 " | | 7.5 |
| Hot Air | | |
| 100° C | 30 | 0.3 |
| 125° | | 2.5 |
| 150° | | 3.6 |
| 175° | | 5.0 |
| 200° | | 5.0 |

The above results are for yarn shrinkage at the respective temperatures and are simply a qualitative guide which may be used in securing dimensional stability of Orlon fabric during finishing. During finishing operations, the Orlon fabric should be exposed to temperatures higher than those which will be encountered in use, in order to secure the proper dimensional stability.

Orlon exhibits a surface wetability which may be predicted from an examination of its bark-like striated surface. The adhesive strength produced between Orlon, the elastomers GR-M and GR-S, and silicone resins has been satisfactory.

Orlon will burn. It does not flash burn when measured by standard test procedures. A lighted cigarette placed on marquisette curtains, awnings, or blankets made of Orlon fiber did not cause these articles to burn.

Both the polymer from which Orlon fiber is prepared and the yarn itself have been investigated for possible toxicological hazards; and both have been rated as non-hazardous. No dermatitis was produced. The products of combustion of Orlon yarn in both large and limited quantities of air are of the same toxicity as the combustion products of silk and wool.

Orlon is of interest in electrical laminates, because of the following significant properties: low moisture absorption; low dielectric constant at microwave frequencies; low loss tangent at microwave frequencies; and is not affected by fungus growth.

Microscopical Properties

In its microscopical structure, the Orlon fiber has some characteristics which make its identification possible. The general appearance is similar to Vinyon, but the surface of Orlon is irregularly striated to varying degrees. The shape of the majority of the cross sections is "dog-bone" or "dumbbell" in character and is similar to Vinyon and "Vinyon N." Clover-leaf shaped cross sections are also prevalent. A distinguishing characteristic is the air-filled pockets or vacoules of minute diameter which are found in the cortex of the fiber. The fiber possesses a skin or cuticle

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having a higher density than the cortex; and this outside layer does not contain the air-filled pockets or vacuoles. Orlon has exceptional bulking power.

Handling in the Mill

Orlon yarns handle well in all phases of the industry, including winding, twisting, braiding, knitting of all types, and weaving. Slasher sizing is carried out readily by conventional methods. A size formula using gelatine, softener, and penetrant, similar to that used on comparable denier acetate yarns, is satisfactory.

Finishing of Orlon Fabrics

The nature of the finishing treatment of Orlon industrial fabrics is dictated by the conditions under which the fabric will be used. Industrial fabrics are used in mediums involving hot liquids, water vapor, and gases. Since Orlon has different degrees of shrinkage in various mediums at different temperatures, it is important that the fabric be stabilized under conditions which simulate the end use, if practical to do so. The stabilizing treatment should be carried out at a higher temperature than that used in the particular application under consideration. Work involving the best method of stabilizing Orlon fabrics is still being studied. In some instances, it will not be practical to simulate the conditions encountered in the end use. The shrinkage in the end use should then be determined and due allowance made in the fabrication of the industrial fabric into end use products.



A tensionless jig or skein boil-off is recommended in a detergent solution at 180-212° F., using a cycle of approximately one hour. This is followed by a water extraction, preferably by vacuum, to minimize wrinkling of the fabric. To secure the maximum dimensional stability, air-lay drying is preferred. Some industrial fabrics may be Palmer-dried to impart a firmer hand. When porosity is a major consideration, cold calendering may be used to compact the yarns and to control the thickness of engineering fabrics. Heat setting improves dimensional stability, eliminates slipping of yarns, and improves the drape and appearance of loosely woven fabrics like marquisettes, ninons and nettings.

A yarn, to have the maximum utility and versatility in wearing apparel and domestic uses, must be dyeable. The first Orlon fiber produced commercially at Camden will exhibit the present dyeing characteristics, which are limited in scope. The present yarn, which is now being produced in a pilot plant at Waynesboro, Va., can be dyed to pastel shades with certain acetate and basic colors, by orthodox

dyeing techniques at the boil. Excellent washing fastness is obtained in all cases, but the light fastness of basic colors is unsatisfactory. The present fiber can be pigment dyed and pigment printed, by use of water-in-oil and oil-in-water emulsions containing resin binding agents.

But what are the possibilities for achieving satisfactory coloration of wearing apparel and domestic fabrics in the future? I know that the answer to this question is one of the greatest importance. I can report that the dyeing problem has yielded sufficiently to laboratory research to allow me to state that Orlon is potentially dyeable with several classes of dyestuffs and that we are now engaged in working out practical commercial dyeing processes. It has been shown that deep, bright colors with surprisingly good wash fastness and acceptable light fastness can be obtained. Likewise, good crocking fastness and fastness to perspiration have been achieved.

Continuous Filament Fabric Applications

Orlon's attributes of high strength, outdoor durability, high flex life, acid resistance, resistance to micro-organisms, and rubbers, electrical properties and dimensional stability are expected to make it a strong contributor to industrial fabric uses, on the basis of unit function per dollar cost and more satisfactory performance. Some of the attributes of Orlon which can be put to work in domestic and apparel fabrics at an early stage of the Orlon development are high strength, a warm, dry, silk-like hand, excellent bulking and covering power, easy launderability; durability in laundering, quick drying, resistance to moths and mildew, dimensional stability in wearing and washing, sunlight resistance, and resistance to smoke, soot and atmospheric gases.

Staple Uses

In planning for the initial plant production, we do not contemplate producing staple at the outset of operations. We are now engaged in an intensive research and development program, which is designed to capitalize on the following attributes of Orlon staple: exceptional bulking power; a warm, dry, wool-like hand; high thermal insulation; recovery from wrinkling; dimensional stability in high humidity; launderability and dry cleanability.

The bulking characteristic of Orlon staple is an outstanding characteristic and is attributable to the low specific gravity, unique irregular cross section which prevents packing, and the good retention of crimp. We feel that Orlon is the most wool-like synthetic staple fiber produced up to the present time and that, when this development is completed, Orlon staple will represent an outstanding synthetic, especially for the outerwear field.

Availability of Yarn and Staple

No samples of Orlon staple are available for development work at the present time; but inquiries may be directed to: the Development Section, Rayon Department, E. I. du Pont de Nemours & Co., Inc., Wilmington, Del. Inquiries on Orlon continuous filament should be sent to C. D. Wenrich, Acetate Division, Rayon Department, Empire State Building, New York City.

Dr. Quig presented his paper before the Dec. 1 meeting of the American Association of Textile Technologists in New York City.



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SPOOLER REJECTS

By L. M. HOWELL, Howell-Wilson Associates, Greenville, S. C.

It is rather singular that for some time past our company has been working on a project dealing with spooler rejects. Unfortunately, however, it has not progressed far enough to determine whether or not it will have any merit. Our project is based somewhat on the old saying that "An ounce of prevention is worth a pound of cure." I think we are all agreed that so far as possible yarn defects should be stopped at their source of origin rather than at the snick plate, and it is on this principle that we are working.

As a beginning, we have secured representative yarn defects as stopped by the snick plate from a number of our member mills. Officials of these mills have co-operated by furnishing to us complete specifications of their spinning and spooling set-up.

The defects will be numbered, and we shall ask the spinner in whose mill they were made to classify and in his opinion determine the source or origin of each gout as listed on his card. The card, together with its spinning specifications, will in turn be submitted to a number of other spinners for their opinion as where the gouts originated. We then propose preparing a summary of the spinners opinions expressed about each card. At this early stage we cannot predict the outcome of this test, but we hope it will provide some information of mutual interest and benefit to us all.

You will be interested to know that preliminary examinations of these cards indicate a general consensus that the great majority of gouts stopped at the snick plate originate in the spinning room and can be classified under three main headings. These are: (1) clearer waste; (2) scavenger roll waste; and (3) some form of cleaning. In practically every instance the waste is only partially spun into the body of the yarn.

Spooler rejects or tailings are divided into four main classifications, which are: (1) bobbins returned to the spooler; (2) sloughs; (3) tangled bobbins; and (4) strips. The first three, added together, give the total tailings. We think you will be interested in a breakdown of each of the four main classifications. The first we shall discuss is the bobbins returned to the spooler.

Bobbins sent back to the spooler for handling result from the following causes, which are listed somewhat in the order of their importance—or perhaps we should say in the order of their quantity. These are: gouts, spinner piece-ups, mechanical failures, small pieces of bobbins broken at bottom of traverse, and loose tails that have not been pinched off at the bottom of the full bobbin.

As has already been mentioned, it is the general opinion that most of the gouts stopped by the snick plate originate

in the spinning room. We again state what these are: gouts caused by clearer waste; gouts resulting from lap-stick or scavenger roll waste; and gouts resulting from some form of cleaning in the spinning room. Gouts originating from these three sources are the result of lint or fibers being only partially spun into the body of the yarn, and each has a potential possibility of permitting two yarn defects to go to the loom. The wider the setting of your snick plate, the greater this possibility.

Let us assume that a soft gout resulting from spun-in clearer waste hits the snick plate. The teeth will make a grab at the gout but will catch only a part of it. The part of the gout passing through the snick plate accounts for the No. 1 defect going to the loom. The part of the gout removed by the teeth of the snick plate blade is held momentarily in the snick plate or until a nep or thick place in the yarn comes up. When this occurs one or two things happens. Either the end is broken down, or the gout is sucked through the snick plate and onto the cheese. These are the lint buttons that so many of you think are manufactured gouts.

May I assure you that only in rare instances will either type of snick plate manufacture a gout. A manufactured gout is one consisting of fibers picked from the body of the running yarn over a long length. You may be sure that you are not manufacturing gouts just so long as the running end is traversing in the snick plate.

We cite as an example the spooling of 30s warp yarn through breaker-type snick plates. Barber-Colman's chart of settings recommends a .021 setting for carded 30s. We have a number of mills on this count of yarn, and their settings will range from .021 to .030. As a general rule, we find that actual snick-plate settings will average from .005 to .008 wider than the chart recommends. To satisfy yourselves that you are not skinning your yarn, may we suggest that some of you who are on 30s yarn make this test. Take your snick plate wrench and begin closing up the blade .002 at a time and see how far you can go before you actually stop the running end from traversing in the snick plate. As a matter of record, you will find that you can close the blade to an opening varying from .004 to .012 before the traversing is stopped.

On very coarse counts, manufactured gouts may occur from too close setting; on the finer counts—no. Very few of you will ever get your snick plates set close enough to skin the yarn. Before you reach that point, your tailings because of small neps and leaf or other foreign matter would sky-rocket to the extent that you would be spooling but very little yarn.

We appreciate the fact that the snick plate is not 100 per

cent efficient, but we do feel that it is the most efficient yarn cleaner with which we have had any experience.

Some of you pass gouts into the warps not because of too wide a snick plate setting, but because of its physical condition. Most of our experience has been with the breaker type, and our remarks will be confined to that kind.

In order to secure maximum efficiency, the snick plates should be checked periodically. There are three operating parts which, if stuck, make the snick plate inoperative so far as cleaning the yarn is concerned—the slide, the shaft, and the blade. A stuck slide can be easily seen, but a closer inspection is required to detect the latter two. Stuck slides and shafts result in the snick plate's being wide open.

The flipper blade operates on two pivot points and may be stuck in either an up or a down position. If stuck in a down position, the blade cannot lift when the gout comes up. If stuck in an up position the snick plate is completely closed; and, while the running end may enter, it will run but a few yards before breaking down. Snick plates in this condition can be detected by finding cheeses on the spooler that may show a great many knots. An alert spooler girl will always find and point out such cheeses.

In making an inspection of snick plates we have found as many as 15 per cent inoperative because of the aboveoutlined conditions. With this number out of commission you can appreciate the possibility of passing a great many gouts into the warps over a relatively short period of time.

Snick plates become inoperative largely because of excessive moisture. This may result from moisture in the compressed air used to blow off the spooler or may come from an excess amount of humidity from humidifiers too close to the spooler. Incidentally, excessive humidity results in more drum laps, suction, and skewer failures. Soft gouts are the most difficult to stop. A snick plate may pass a comparatively large soft gout but will stop smaller defects such as piece-ups or pieces of leaf or stem turned crosswise the body of the yarn. The best way to determine the efficiency of the snick plate is to take a tailings report and examine the defects removed. We have found that the

number of spinners' piece-ups removed is a fairly accurate gauge of the efficiency of the snick plate.

We recently made a snick plate test in which the mill was spinning 13s yarn long draft from single roving. The purpose of the test was two-fold: first, to see if gouts made from setting in roving could be stopped; and second, to determine what percentage of spinners' piece-ups were being taken out. A number of bobbins were loaded with a predetermined number of spinner piece-ups and roving gouts. The snick plates in this mill were set to .005 over the setting shown on the Barber-Colman chart, and at this opening we stopped 52 per cent of the known number of piece-ups but none of the roving gouts. We then closed the snick plates to the setting recommended by the chart, and at this opening we stopped 94 per cent of the known number of piece-ups but failed to get a single one of the known number of roving gouts.

If production can withstand it we favor a snick plate setting close enough to remove the majority of spinners' piece-ups. Because of the way most ends are stuck up, it is questionable if they will stay together long enough to be woven into cloth. If the spooler has sufficient capacity, it is better to have the piece-up taken out at that point rather than have it pull in two at the warper, slasher, or loom.

Total failures consist of four kinds—knottet, suction, skewer, and poor operators. The tie-up is considered satisfactory if the total failures do not exceed three per cent. We visit a few mills where the total failures will average but a little over one per cent, but these are exceptions rather than the general rule. In these mills the yarn is good and the section men and the spooler girls are well trained.

Tailings broken at bottom of stroke usually occur on yarn numbers ranging from 30s and finer and result from a number of sources. In spooling yarn over end at high speed there is a variation in tension from top to bottom. Tension on the running end also increases as the diameter of the yarn mass decreases. The longer the stroke and the smaller the diameter of the spinning bobbin, the greater the possibility of end breakage of this type. All other things being equal, more end breakage of this nature will occur from warp wind than from combination-wound bobbins.

We have found, however, that where any appreciable

SEVERAL QUESTIONS were presented to L. M. Howell following his address before the Southern Textile Association meeting at Clemson; they were as follows:

Question: What experience have you had with brushes on drums?

Answer: We have had quite a bit of experience with brushes, and we think they are all right. They practically eliminate drum laps. Another advantage, especially in mills which have spoolers equipped with yarn clamps, is that it enables you to take the clamps off and get rid of a good bit of wild yarn.

Question: What has been your experience in spooling yarns with reverse twist?

Answer: That is the hardest type of bobbin to tie, because as the bobbin is skewered into running position it tends to wind up the slack. We have recently found that if you doff the frame with the ring rail about two inches from the bottom at the top of your stroke it is better, because as the bobbin is skewered into running

position that loose end will whip around the bobbin and not strain the yarn in the knotter.

Question: Have you had any experience in tying Himalaya slub yarn, and if so, what?

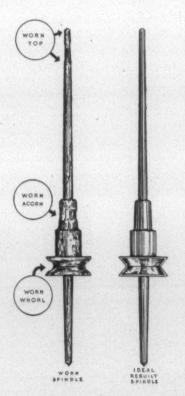
Answer: Yes, we have. Any of you who are tying this yarn may expect to get some slip knots. That will depend on the length of the slub, as well as the spacing of the slubs. It pays you to forget about your snick plates when you are running that yarn and run them pretty well wide open, because if you close them you will disturb that slub and it would probably show in the cloth.

Question: Do you recommend leaving snick plates wide open?

Answer: No, not wide open. One mill was running the breaker-type snick plates at about .052, and at that setting they were stopping some slubs. We opened the snick plates to about .060 and at that distance eliminated the slubs. But you cannot expect to do much cleaning when you are running slub yarn.



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number of bobbins fray in two at the bottom of the stroke it is the result of too soft a spun bobbin. The tension on the running end is determined to a certain extent by the density of the yarn mass on the bobbin. If you feel that your spinning will not stand a slightly heavier traveler, it may be necessary to reduce spooling speed to get away from this type of end breakage. There is no question that a soft-spun bobbin develops more tension in spooling than occurs on one more firmly built. We all appreciate the advantage of retaining as much elasticity in the yarn as possible.

Failure to pinch off loose tails preparatory to placing the bobbin in the pocket not only results in unnecessary end breakage but is a source of wild-yarn buttons as well. While doing this requires more time, it should be considered a must in spooling. There is a windage or draft of air in the bottom of the bobbin pocket that tends to lift and throw this loose tail into the path of the winding end. When the two meet and lock together, one of two things happens. If the loose tail is stronger, the running end is broken and a bobbin is lost. If the running end is stronger, the tail is broken off and carried to the snick plate, held momentarily, and then passed to the cheese, later to show up at the warper, slasher, or loom as a wild-yarn button.

In taking tailings reports we, unknown to the spooler girl, keep a separate check on the number of bobbins discharged at the end of the spooler on which the tail has not been pinched off. We have found this to run as high as 40 per cent. Surprisingly, the greatest offenders in this respect are spooler girls paid by the piece. They are after total cheeses and not quality. We have also found that the heavier the work load the greater is the tendency of the spooler girl to fail to pinch off these tails. Any of you who can devise some positive means of getting rid of this tail when the bobbin is doffed at the spinning frame will be making a worth-while contribution to the industry. So much for bobbins returned to the spooler for handling.

Warp Wind vs. Combination Wind

We are all familiar with the story of warp wind versus combination wind, or vice versa. As far as we are concerned, we try to be neutral. Sloughs will occur on both winds. Some are stopped at the snick plate, while others are passed through onto the cheese regardless of the snick plate setting. The yarn on combination-wound bobbins which have sloughed can be more easily salvaged than on warp wind. On the other hand, more sloughing occurs with combination than with warp.

The principal causes of warp-wind sloughs are as follows: too short a top taper; ring-rail dwell from any source that will bunch the yarn at the top of the stroke; too light a traveler, resulting in a soft-spun bobbin; too long a stroke for the length of the bobbin.

On new spinning a stroke of 1½ inches less than the over-all length of the bobbin is recommended. On old spinning, where there is wear on both bobbins and spindle acorns, it is probably safer to figure difference in bobbin length and stroke at 1½ inches. While this may possibly result in a slight reduction in bobbin length, it will greatly reduce sloughs and bobbins tangled at the top.

The subject of the merits and demerits of combination wind is one that has been widely discussed. There are

almost as many methods of building a combination-wound bobbin that will not slough as there are spinners. On the basis of our experience with this wind, we offer the following comments: the higher the drum speed, the greater the amount of sloughing; coarser numbers slough more than the finer counts; ring rail dwell from any source; too close a lay; soft-spun bobbins resulting from the use of too light a traveler; the non-sloughing cams have some merit, but they are not an absolute cure-all. The majority of sloughs occur just as the yarn leaves the top of the bobbin on the down stroke, and this cam is designed to get the running end away from this danger point more quickly.

To you who are on combination wind, we suggest that you do everything you can to eliminate ring rail dwell, including sticky lifting rods, and build as firm a bobbin as you can. On the basis of our experience, we have found that these two things more than anything else determine the amount of sloughing that occurs.

Contrary to public belief, we have found that mills on combination wind as a rule have more tangled yarn waste at the tailings machine than those on warp wind. In this day of 30-cent cotton and a high manufacturing cost through the spinning, this is an item to be considered.

Most of you on combination have your builders equipped with bobbin formers, and in an effort to regain some of the yards lost at the top of the bobbin you pile too much at the bottom. This results in the layers of yarn rolling over and tangling at the bottom of the bobbin. The yarn from such bobbins cannot be run off over end at either the spooler or the tailings machine. Neither can the yarn on combination-wound bobbins so tangled be salvaged by placing them in shuttles or side-wind pockets, and as a result it must necessarily be cut off. You may lose a few yards by not piling the yarn with the bobbin former, but you will have less good yarn going into waste.

I cite the record of a mill spinning 31.5s warp yarn in 17/8-inch rings, warp wind. This is a good-sized mill, it having two medium-length spoolers and two Superspeed warpers. You will find this hard to believe, but the tangled yarn waste, including stripper waste, will average but from 11/2 to 21/2 pounds per eight hours in this mill. This record is made possible by keeping a close check on the build of the bobbin as well as on the physical condition of the builders. To be sure, some tangled bobbins are made, but the yarn is salvaged from them at the tailings machine rather than cut off. We admit that the salvage of yarn at the tailings machine is a tedious procedure. But with the presentday price of cotton, together with high manufacturing costs, everything possible should be done first to put the yarn on the bobbin in such a manner that it will spool off and second to try to salvage all yarn possible from bobbins that

In making a comparison between the waste on combination and that on warp wind, we have somewhat jumped the gun as regards the different causes of tangled bobbins which show up at the spooler.

In taking tailings reports, we save out all tangled bobbins and, to the best of our ability, we classify and list these on the bottom of each report. We feel that doing this may be helpful in bringing about a reduction of any certain kind that may appear to be excessive. In some mills we visit it is an established policy that the spinner, the second hand, and in some cases the spinning room section men will make periodic inspections of tangled bobbins discarded at the



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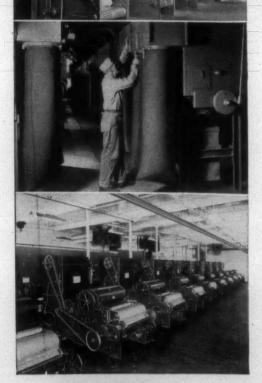
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(Top) Chutes from blending room to blending feeders (Center) An impressive line of No. 6 Air Filters (Bottom) Pickers in a large Southern mill



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spooler. By actually seeing what is being thrown out, they are in a better position to take corrective measures at the source of origin.

We know of other mills which have set up a system of pegging the first bobbin doffed on top of the spinning frame. Some replace the pegged full bobbin on each doff; others replace it once or twice a week. This enables them to keep a close check not only on the uniformity of the build but on the fullness of the doff.

We should like to point out that, while we fully appreciate the many things that may cause short doffs, it should be remembered that the girl and the knotter work just as hard on a partially full bobbin as they do on a uniformly filled one, but the pounds are not produced.

Getting back to tangled bobbins, we list the main causes somewhat in the order of their occurrence as to quantity—tangled at bottom taper (especially combination wind), tangled at top taper, high bobbins, doffer piece-ups, pinched or lapped ends, singlings, soft yarn and knotty or cockled yarn. We consider tangled bobbins in excess of three per cent to be on the high side.

Percentage of Strips

We refer to a strip as a bobbin that does not have sufficient yarn remaining to justify salvaging, which at the most does not amount to more than three or four layers. If the wood of the bobbin can be seen through the layers of yarn, we consider it a strip. The quantity of strips involved is not serious from a waste standpoint, but it should be remembered that it not only costs money to dispose of them but that they are an added source of wild yarn.

Too many of you permit the tailings girl to cut these off, rather than use the bobbin stripper, and this shortens the life of the bobbin.

Major causes of strips, somewhat in the order of their quantity, are as follows: doffer piece-ups; failure of doffer to tie down loose tails when starting up frame; high bobbins; and failure of spooler girl to pinch off loose tails.

If strips due to doffer piece-ups are excessive, this is an indication that for some reason too many ends are coming down when the frame is doffed. It is just as well that these piece-ups should be stopped at the snick plate, because we question if any of them would survive long enough to weave.

It is important that all warp doffers be instructed to tie the loose tail down when starting up the frame. If this is not done, you can expect strips from most of the bobbins on that particular doff. Strips exceeding $2\frac{1}{2}$ per cent are considered on the high side.

Most of you are interested not only in your own tailings but likewise in what the other fellow is getting. We have secured some records from our files from which we have prepared a summary of average tailings. This has been limited to mills spinning 30s to 30.5s, carded yarns. Each of these summaries covers approximately a 1,000-bobbin test. The percentages we quote are total tailings, which include bobbins returned to the spooler, sloughs, and tangled bobbins.

Mill No. 1, 30s yarn, combination wind, 13/4-inch ring, breaker-type snick plate set at .021—23.74 per cent. In contrast to Mill No. 1 we quote the following results from Mill No. 2 on 30.5s yarn, 17/8-inch ring, warp wind, breaker-type snick plate set at .022—11.61 per cent. This is the mill referred to earlier as averaging from 11/2 to 21/2 pounds of tangled yarn waste at the tailings machine in eight hours. Incidentally, tangled bobbins discarded at the spooler will consistently average less than one per cent. To be exact, our summary shows .86 per cent.

Here is an interesting one that shows the efficiency of the snick plate at different settings. This mill is on 30s yarn, warp wind, 13/4-inch ring; and was operating breaker-type snick plates at .035. At this setting the total tailings averaged 10.42 per cent. The snick plates were closed to .028, and the total tailings jumped to 18.73 per cent, or practically double. On summaries we have prepared of mills spinning 30s warp yarn, the total tailings will average from 15 per cent to 18 per cent.

Mr. Howell made his remarks during the Fall meeting of the Southern Textile Association's South Carolina Division.

THE MILL OF TODAY

BY ROBERT 7 WALKER

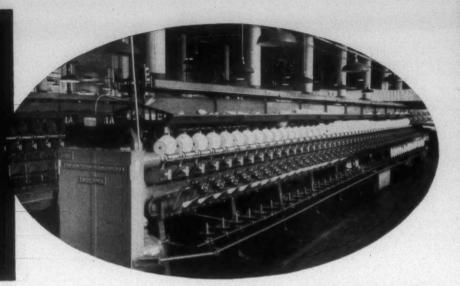
Part Eight - Pickers (the Beater Section)

IN order to fully understand the functioning of the picker, and to be able to analyze the probable cause of poor performance, the technician must be able to visualize the component parts of each section of the picker and to correlate the achievement of the individual sections into one smoothly running rhythm. The expert technician is the man who is able to examine a section of picker lap and from his examination note the faults in the handling of the single fibers and in the formation of the lap as a whole. Further, after the examination and after noticing the points that can be corrected, he must be able to deduce the cause of the trouble and then be competent in correcting the adjustments and speeds which lie at the base of the poor work.

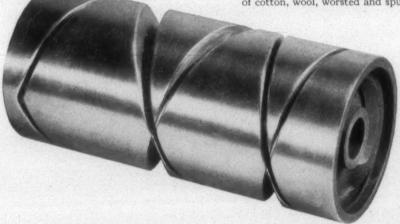
In order to approach attaining such competence it is vital that the mechanism and operation of every single section of the picker be fully understood.

It has previously been pointed out that picker performance is based to a large extent upon the opening and cleaning administered to the stock before it reaches the picker room. The stock fed to the picker must have been sufficiently cleaned to remove most of the heavy waste material and opened enough to deliver the fibers to the beater of the picker in a loose fluffy bunch. Further, the opening line must have been adjusted so that while the stock is well opened and cleaned, it has not been handled so harshly that the fibers have been curled or weakened. Finally, the stock

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must have been properly conditioned, amply blended, and delivered to the picker at an even flow.

In the modern one-process picker, fed by a distributor and having a feed regulated by electrical controls, the stock is dropped from the distributor onto a short apron back of the feed rolls of the breaker section. The apron is also used when a hopper is used as the feeding agent for the picker, the manner in which the stock is fed to the feed rolls being the same in either case. At the forward end of the short apron there is a large wooden roll, six inches in diameter and very coarsely fluted, which serves to compress the cotton so that it feeds to the feed rolls of the beater section without rolling or becoming bunched or disarranged.

The feed rolls are steel and have coarse flutes machined into them. In general the feed rolls are 2.7 inches in diameter but the coarseness of the fluting causes a crimping action of the stock which produces an effective diameter of 21/2 inches. It is essential to figure the effective diameter of these rolls in order to obtain the true number of beats per inch when calculating the performance of the beater. The lower feed roll is held in a fixed bearing with the upper roll resting on it and held firmly in place by strong spring pressure. The top roll must be held in position under spring pressure for, first, there must be a sufficient pressure to hold the fringe being beaten by the beater so firmly that the large tufts of fiber are not pulled out; second, this pressure must be maintained through variations in the thickness of the sheet of stock being fed; and third the feed roll must have the freedom of movement to allow it to give when a large clump of stock passes forward. If the top roll was held over the bottom roll on a fixed bearing the pressure would be too light to give a firm grip when the sheet of stock was thin and if the stock came through in a large clump the feed roll would be forced so badly that it would not turn concentrically. A crooked or bent feed roll must be removed immediately from the picker and either straightened or replaced with a new one. The feed rolls of the picker are all too often completely disregarded when it may be that the cause for lap variation is caused by using a roll that is not straight. The feed rolls should be cleaned periodically of the waste which becomes impacted in the fluting and which destroys part of their gripping action. At the time the rolls are cleaned they should also be examined for burred fluted edges and other types of roughness which cause the fibers to be pulled from the roll unevenly.

Types of beaters, diameters of beaters, and the usefulness of the different beaters have already been discussed. Beater speeds and the number of beats per inch that should be administered to the stock are important items that should be clarified. Beater settings from the blade of the beater, or the beater pins if a carding beater is used, range from a minimum of ¹/₁₆th-inch to a maximum of one-half inch. This setting is measured from the feed roll to the edge of the beater, with the setting checked completely across the width of the machine and on each blade of the beater, so that the setting is measured at the closest section of the beater to the feed roll. Care should be taken in setting a beater to keep the beater parallel to the feed roll. Beater settings are accomplished by loosening the beater boxes and moving the entire beater assembly to the correct position.

If particular attention is not paid it is very easy to set the beater at an angle with one side closer to the feed roll than the other.

The distance of this setting will depend upon the weight of the lap, the length of the staple, the type of the beater, and the position of the beater in the picker. When a heavy lap is used the setting must be wider to accommodate the greater mass of fibers. The length of the staple must be considered as the longer staples may be injured or broken if the setting is too small. Blade beaters cannot be set asclosely as either Kirschner beaters or pin cylinders as the beaters which are covered with pins penetrate into the mass of fibers and have a more gentle action than a solid blade beater. The position of the beater in the picker is a factor that must be recognized as influencing the setting of the beater to the feed rolls. In the breaker section the cotton is fed to the rolls in a mass that has not yet been acted upon by a picker beater; the mass is heavy and composed of entangled fibers and allowance must be made by using a wider setting. After passing through this beater section the fibers are partially opened and are easier to handle at the next beater in the machine. Therefore the intermediate, if there is one, and the finisher beater are acting upon opened stock and are able to beat the fibers into much smaller groups. The mass of fibers will be less and the fibers will be easier to separate so that the beaters of these sections can be set closer to the feed rolls without damaging the stock.

Although the exact settings for any given set of conditions will have to be determined by a slight amount of experimentation and trial, settings may be prescribed which will establish as a basis from which to start. For blade beaters in the breaker section of the picker the setting will generally range from 5 ths to three-eighths of an inch, dependent upon the factors already discussed. If a carding beater is used the setting will be from 3 ths to three-eighths of an inch. The beater used in the intermediate section and the finisher section will be set closer. If the beater is a blade beater the setting feed roll to beater blade will range from approximately one-eighth to three-eighths of an inch. A carding beater may be set as close as 1/16th-inch under certain conditions. When attempting to set a beater this close the bearings of the feed roll and of the beater must be very tight so that there is not any movement of either which would allow the two assemblies to come into contact. A gauge must be used and the beater turned completely around by hand with the gauge in place to make certain that the setting is 1/16th-inch at the closest point. Close settings such as this should not be attempted on old worn machines or on machines which are placed on a floor that will allow the picker to vibrate.

Another setting which should be made at this time is the position of the cut-off. The adjustable cut-off is simply a blade running across the width of the beater and located on the opposite side of the beater from the feed rolls, at approximately the same height as the feed rolls. This cut-off is employed to prevent any stock from traveling completely around the beater, or from following the beater in a complete circle, and to deflect the stock in a straight line from the beater to the screen section. The cut-off should be set $\frac{3}{32}$ nds-inch from the beater blade, measured from the edge of the blade to the innermost tip of the cut-off. A setting which is too wide will allow the stock to tend to follow the beater. In addition, the air surrounding the



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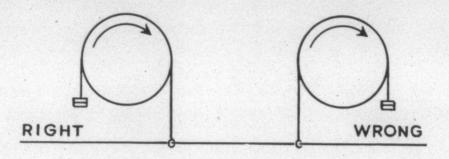
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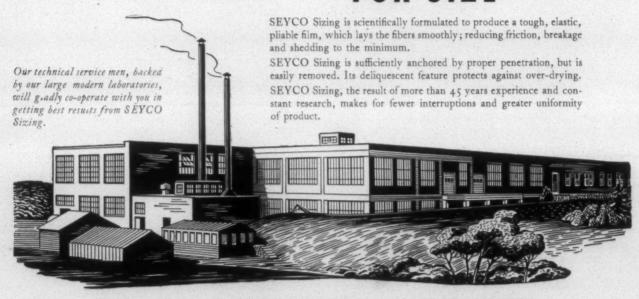
SECTION BEAM TENSION

Generally tension is maintained on section beams by means of a friction rope slung over the beam head. This simple device maintains an even tension, and just enough friction to prevent running over when the slasher is slowed.

Be certain that it is properly fastened, so that the beam is lifting the weight, and not pulling at the anchor. Then, if the rope catches, it simply lifts the weight and does not throw a sudden tension on the yarns, which may cause breakages.



HEADQUARTERS FOR SIZE





beater will also follow the beater and will create a terrific air turbulence that will interfere with the proper opening of the stock and will endanger the evenness of the flow of stock and air to the screen, causing the formation of the sheet of stock at the screen to be uneven.

The final adjustment or settings that must be made at the beater section is the regulation of the grid bars. The grid bars must be checked for two particulars, the distance of the beater to the bars and the angle that the bars make with relation to the tangent of the path of the beater. The grid bars are triangular in shape and are supported with the thin edge adjacent to the beater. In most pickers there are two sets of bars with eight bars to the set. Adjustable cheeks hold the sets of bars in place and may be adjusted to change the angle that the set of bars have to the beater. It should be remembered that each bar is not adjustable independently but only each group of eight. The first group of bars, or the set closest to the feed rolls, should be adjusted first. These grid bars are the ones which act upon the stock first and which are called upon to perform the greatest amount of cleaning. In setting the grid bars the adjustment is governed by the rule that the more acute the angle of the bar is to the beater, the greater will be the amount of cleaning. It does not follow that the bars should be set wide open for maximum cleaning for, although the cleaning and waste removal would be the greatest possible, the cleaning would be at the expense of a corresponding high loss of good stock. In actual mill practice the setting of the grid bars is affected as a compromise between preventing the loss of good stock and obtaining efficient waste removal. The first section of grid bars are generally set at

a more acute angle than the second group. Any change in the angle of the grid bars also changes the amount of opening between the bars, with the most acute angle of the bar creating the greatest distance between the individual bars. As the acute angle and the wider opening between bars both produce maximum cleaning and waste removal, it is necessary to consider only the angle of the setting. The distance between the bars and the beater will be found to be satisfactory in most instances if the top bar is set $\frac{3}{10}$ ths-inch from the beater with the distance gradually increasing to one-half inch at the bottom.

One important point to check when setting the grid bars is the position of the first grid bar under the feed rolls. This bar should be set exactly and on the tangent from the feed rolls. The setting must be made accurately as a great deal of cleaning with an excessive loss of good stock will be caused by setting the bar back of the line made by the tangent. The cleaning will not be done efficiently if the bar is set forward of the tangent.

One other factor influencing the amount of waste removed by the grid bars is the speed of the fan at the screen section. If, for any reason, the fan is slowed down the removal of waste by the grid bars will become increased. Waste tests should be made periodically and all settings checked to assure maintaining regularity of waste removal.

The amount of waste that should be removed from the stock at each beater is influenced too greatly by too many factors for any set of hard and fast rules to be imposed. The type of stock being processed and the ultimate use of the yarn spun from this stock is probably the most determining factor. However, once the amount of cleaning that must be done to make satisfactory products has been determined, the control of the waste removal is still dependent upon the above adjustments.

Warp Preparation & Weaving

SO YOU WANT GOOD CLOTH!

By FRANK D. HERRING

Part Two - Preparing the Size Mix

IN the preceding installment the writer covered planning, supervision and warping—or the preparation of the warper beam for the slashers. We now move on to the slashing process where the yarn on the warper beams will be treated with the size mixture and put on the loom beams. Covering this process, which includes the preparation and application of the sizing mixture and the proper handling of the yarn through the slashing process, will require a lot of writing.

Almost everything I have learned about slashing has been accomplished by trial and error, and very often departing from the traditional established methods. I am writing this from my own personal and practical experiences. My experiences and contacts with hundreds of mill men have

convinced me that mill men as a whole know less about the slashing processes than any other throughout the entire mill. All of us are too inclined to accept, and be satisfied, with the conventional ways and methods of doing a job. Of course we should learn these established methods in order to bring us up to date, but we should not accept them as final and stop trying to learn better ways.

The Sizing Mixture

The primary reason for sizing warp yarn is to cement together the fibers of each thread sufficiently so that they will hold together through the weaving process without undue shedding and breakage, as well as to give the yarn added strength for better weaving. High efficiency in loom production should be kept in mind first, last and always when preparing and applying the sizing mixture; such high efficiency is a necessity if mills are to operate on the small margin of profit prevailing in the textile industry. The second reason is to add weight to the yarn and carry it through into the finished cloth. The third reason is to provide a desired hand, or feel, to the woven fabric. This hand will vary from very harsh to very soft, based on the specified requirements of the various customers who buy cloth. All three reasons are very closely allied, and results are obtained by varying the size formula and the procedure through the slasher. It is an established fact that weaving production and costs can be affected to the extent of from 25 to 30 per cent by the way in which the warp yarn is sized and handled through the slasher.

There are numerous essentials involved in making a properly sized warp. The first essential is the proper preparation of the sizing formula. Several things must be taken into consideration, and several facts known before a properly balanced sizing formula can be made with any degree of accuracy. One should first know what grade of cotton is being used. The shorter the staple of the cotton, the more highly concentrated, or more viscous, the sizing mixture should be. This can be accomplished while retaining the desired hand in the woven fabric (this will be covered thoroughly when we get to the application of the size). Also one should know how the stock is drafted, especially on the spinning frame. The higher the draft on the yarn, the more difficult it is to formulate a size mixture and apply it to keep down excessive shedding and yarn breakage during the weaving process.

One should know what twist is contained in the warp yarn. Standard or higher than standard twisted yarn is more difficult to size and obtain a thorough penetration in the fibers of the thread than it is on yarn with below-standard twist. Taking out twist of course increases the production on the spinning frame, but I am not recommending that the twist be lowered below standard. However, I have known this to be done and still retain sufficient breaking strength

in the yarn and cloth.

Many woven fabrics are what we refer to as loom finished. In many of these a specified breaking strength must be maintained. But this can be done safely with lower than standard twist in the warp yarn, provided the slashing is right. Some fabrics are finished in such a way as to have all the size removed; and still are required to maintain a specified breaking strength. In fact, the manufacturer of the cloth will have to be governed as to the twist, breaking strength and feel of the cloth in accordance with what the buyer requires. Many local conditions are encountered from mill to mill which make it necessary to use a different sizing formula, even though the woven fabrics are the same. The number of the warp yarn or the number of threads in the sheet of yarn being carried through the slasher should not necessitate a change in the sizing formula, except in very extreme cases. However, these conditions do require some changes in the procedure at the slasher, and the application of the size (this also will be covered later when we get to the application of the size)

One must possess a fair knowledge of the ingredients

used in the size mixture, and the part that each one plays in the final results. A balanced warp sizing will usually be composed of starches, softeners, gums, preservatives, penetrants, loading agents and hydroscopic agents. All of these materials will not be used in every size formula, but some of them or possibly all of them are used in every formula, depending on requirements.

Starches

The materials known as starches used in warp sizing consist of the following kinds: corn, potato, tapioca, wheat, sago and rice. Two kinds of corn starches are used. One is that known as the regular pearl variety, or thick-boiling. This is the straight starch separated from the grain of corn, and freed of other parts of the grain, such as the germ and oil. The other variety of corn starch is known as thin-boiling. This is produced from the regular pearl variety by passing it through several chemically modifying processes. Some mill men prefer using the pearl starch and breaking it down to a less viscous solution by chemical and biological methods, such as acids, oxidizing agents (hypochlorite and the organic form of chlorine) or enzymes, which thin down the starch by digestion. Through the sources of information available to me I have been told that thin-boiling starches are usually manufactured by such means. Various products for this purpose are on the market, and are sold under different trade names. The starch and sizing manufacturers have sales and service men on the road who can assist mill men on the job as to the proper use of these thinning

It has been my experience that most of the mills use thinboiling corn starch for sizing cotton warp yarns. It can be bought in varying degrees of fluidity, and can be easily adapted to mill requirements. However, very good results can be obtained with pearl starches, provided the mill has the proper equipment and trained personnel for the job. This positively is not intended as a plug for, or a knock against, any starch or sizing manufacturers, for they all must sell a good product, and provide service, or go out of business. I think it a fine thing for the mills that there are numerous makers of these products. The starch and sizing business is a very competitive one, and this simply means

better service and savings for the mills. I am greatly indebted to starch and sizing manufacturers and representatives, since I have learned a lot from them. They get around and naturally learn more ways and means of combating or overcoming many problems. The mills buy this service along with the products, and I think it a very wise policy to use it. Corn, wheat and rice starches are obtained from the seeds of these respective cereals. Potato starches are obtained from the tubers, or roots, of potato plants. Tapioca starch is obtained from the tuberious roots of the cassava plant. Sago starch is obtained from the pith of that plant. All starches have the same general physical and chemical properties, and will act under preparation for use in a similar manner, but in varying degrees.

Each of the above-mentioned starches reach the gelatinizing point at different temperatures. These starches will change from a powdery substance to a very heavy paste, and with continued application of heat up to the boiling point, the paste will change to a viscous liquid. This liquid will thin down some with continued application of heat until it is sufficiently cooked and ready to apply to the warp

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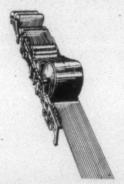
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yarn. Agitation of the contents in the size cooking kettle is as necessary as heat in the proper preparation and cooking of the size mixture. My experience has been that a great majority of the mills run the agitators in the cooking kettles too slow. Raw steam is used in the cooking kettles, and the steam enters the kettle through perforations in the coils of piping contained inside the kettle. The more thorough the agitation of the contents within the kettle the more often these contents will come into direct contact with the live steam as it enters. This gives a more uniform cooking to the size mixture.

Another advantage of increased agitation of the contents in the kettle is that it allows the steam to pass up through the entire mixture and heat evenly distributed throughout the mixture. By allowing the steam to pass up through the mixture more freely it will prevent the mixture from being pushed up and out of the kettle when the gelatinizing point has been reached, or when the contents of the kettle have reached a high boiling point. All of us who have spent much time around slashing departments have seen the size boil out of the cooking kettles and be wasted on the floor.



The perforated steam pipes are always placed near the bottom of the kettle. This is where they should be placed, for without sufficient agitation in the kettle the temperature at the bottom will be several degrees higher than at the top, and this condition does not allow uniformity of cooking. Increased agitation also is a direct aid in dissolving the starch particle when preparing the starch for cooking. The time required for cooking (after reaching the boiling point) of the above-mentioned starches, after they have been prepared for cooking, is as follows:

| Corn | starch | 1-1 | hou | 15 m | inutes |
|---------|--------|-----|-----|------|--------|
| Tapioca | " | 1 | 11 | 15 | .,, |
| Sago | " | 1 | 23 | 15 | " |
| Potato | ,, | -1 | ** | 15 | " |
| Rice | 35 | 1 | ** | .30 | ** |
| Wheat | ** | 1 | | 30 | " |

You will please note that I state the above is the required time for cooking, after the starch had been prepared for cooking. This will be explained later when we cover the mixing and cooking of the size. The percentage of starch used per gallon of water will vary some on all the other starches when compared with corn starch. But with patience and study, a sizing formula can be made up that will give the desired results with any of them.

One should always keep in mind the total cost of the sizing formula. However, it is very often possible to lower the over-all cost of the manufactured product by increasing

the cost of the size formula, and vice versa. I would like to emphasize in the strongest terms possible the vital importance of the slashing process. It is possible, and I have seen it happen, for a mill to go into the red due to a few errors of commission or omission in the preparation and application of the size. Too many mills allow the slashing department to be run in a careless, haphazard, hit-or-miss way, and depend too much on guess, and the unreliable human element involved. It is good economy to have automatic heat controls on the cooking and storage kettles, size boxes and drying cylinders, and recording thermometers attached to record the actual proceedings. Have the recording instruments checked often and kept clean and in good working order, and calibrated at least once each week by the overseer or supervisor.

The smallest division of starch is known as a granule. Some claim that this starch granule consists of two parts, a sack or bag of an insoluble substance, surrounding a soluble interior. I cannot agree with this claim, because I am convinced that the entire starch granule is composed of soluble substance, and can be put into thorough solution in water. This will be discussed later when we get to the preparation of the starch for cooking. The starch granule is either an all-soluble substance, or the insoluble portions are completely transparent, and this does not bave an unfavorable effect when applied to the yarn.

Softening Agents

Some kind of softening ingredient is necessary in a sizing formula for warp yarn. It is required in order to make a balanced size mixture, and to obtain the desired results in slashing, weaving and the finished cloth. When starch is broken down and cooked, it becomes a transparent, liquid, gum-like substance. If this was applied without modification it would destroy the elastic and flexible qualities of the yarn. And also the yarn would be very stiff, harsh and rasp, and that would greatly increase yarn breakage while weaving. Also, the warp yarn would not interlace uniformly with the filling yarn, and thereby destroy the smoothness, or evenness of face, or cover of the woven fabric.

Softeners are used in the size formula for the following reasons: (1) to break down the toughness of the gum-like cooked starch, and render it more pliable and flexible; (2) to increase the penetration of the size mixture into the core of the yarn, thereby cementing the fibers together more thoroughly, and imparting greater breaking strength to the yarn; (3) to give pliability, flexibility, and increase the stretch or elasticity of the sized warp yarn; (4) to enable the wool covered squeeze rolls to clean the surface of the yarn more completely; (5) to prevent the squeeze rolls and the drying cylinders from becoming partially coated, or gummed up, with the starch, which would cause the yarn to adhere to them; (6) to help control the desired hand of the woven fabric; (7) to provide some surface lubrication to the warp yarn so it will pass through the drop wires, harness and reed more easily; (8) to help control the weight, or size regain, in the woven fabric. Summed up, it all amounts to this-it is absolutely necessary to use some kind of softening agent to make a balanced, usable size formula.

Beef tallow has been the basic ingredient used in preparing sizing formulas. However, tallow is seldom used in its straight form. Tallow, as many other softeners, are put through modifying processes which render them sufficiently



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above, remember that it's backed by C&K's invisible trademark — a basic assurance of quality in woven fabrics. Yes, mills that weave any type of fabrics on C&K Looms have long been known for dependability in quality, delivery, and price. And that's exactly why so many

different types of cloth are woven on Crompton & Knowles Looms.



Crompton & Knowles Loom Works

WORCESTER 1, MASSACHUSETTS, U. S. A.

PHILADELPHIA, PA. • CHARLOTTE, N. C. • ALLENTOWN, PA. CROMPTON & KNOWLES JACQUARD & SUPPLY CO., PAWTUCKET, R.4.

TEXTILE BULLETIN • December, 1948

This "Invisible Trademark"

Stands Back of the Famous Trademarks

Shown above

soluble or emulsifiable to be used in sizing mixtures. Other materials used as softening agents consist of the following: mutton tallow, vegetable tallow, spermacetti, cocoanut oil, castor oil, palm oil, Japan wax, paraffin wax, and proprietary softeners.

Most of the sizing mixtures on the market would be classed as proprietary softeners. As most of them contain more than one of the above mentioned materials, and also they usually contain other necessary ingredients such as preservatives, penetrants and hydroscopic agents. Some of them contain highly concentrated gums. Some kind of preservative agent is necessary in any size mixture used for sizing warp yarn to be made into cloth; it keeps down mold, mildew and other bacteria. One other thing is absolutely necessary in formulating a size formula which will give good-running weaving, and all the other desirable requirements—the formula must contain a minimum of four to six per cent of fats.

The next installment will cover the preparation and application of the size.

Operating Executives Discuss Slashing And Weaving

A T the Fall meeting of the Southern Textile Association's Eastern Carolina Division, held Oct. 30 in Erwin Auditorium, approximately 40 of the operating executives in attendance gathered in a separate room for a discussion of slashing and weaving matters. The discussion was led by C. W. Howell of the Erwin Cotton Mills Co. plant at Erwin, N. C., who has furnished the report below.

Slashing

The question was asked, "Have you had experience with the separate application of fat from the regular size solution on slashed yarns?" One member stated that in his mill fat had been applied separately to the yarns for a period of about two months on a trial basis. Weave room checks, covering several hundred loom hours with warps slashed with the regular size solution in comparison with an equal number with fat applied in the separate process, indicated a decrease in loom stops and filling breaks on the looms with warps slashed on the separate application, which resulted in an increase of about two per cent in weave room production. This was true, however, only when the percentage of fat in the separate application was greater than the percentage in the regular mix. About one per cent fat on the weight of the varn was used in the separate application, while the regular mix contained 0.75 per cent fat on the weight of the yarn. It was pointed out that one of the advantages in the separate application was that a greater percentage of fat could be applied than could be in a regular size mix. There was a slight increase in the cost of slashing with the separate application. One other mill had tried the separate application process and had experienced similarly favorable results.

A question covering new materials or methods used in covering size rolls on slashers was discussed. One method described was to cover squeeze rolls with wool and cotton yarns. The regular size rolls were used with the addition of flanges on the end to allow an increase in the diameter of the rolls when yarn was added. The process consisted of winding a few rounds of the traverse with jute yarn as a base, then adding necessary amount of two strands of cotton and two strands of wool yarn. One complete traverse of these yarns was added about each eight hours. It was estimated that about 75 pounds of wool per slasher per year would keep the rolls in good condition, and the rolls should be re-built every three or four months, depending upon the

yarns being slashed. It was thought that this method of covering rolls would cost only about one-third as much as covering with woolen blankets. Another member was using rubber covered rolls and had experienced no difficulty with them, while one who was using rubber had experimented with a covering or sock over the rubber with better results.

Weaving

In reply to a question relative to different types or methods of checking shuttles in the loom other than with the conventional check straps, a member stated that he was using an endless check strap and thought it was superior to anything tried before. Another was running, on an experimental basis, a hydraulic type check that seemed to be very satisfactory. It was explained that this method of checking did not vary as did leather, due to changes in relative humidity.

Leather and rubber pickers were used in about the same proportion by most men, with some of them getting an exceedingly long period of running time with the rubber. A few were using nylon and thought that the increase in the initial cost was justified by the long service obtained. A discussion developed around the proper method of installing pickers, and other factors relating to proper adjustments of loom parts necessary for long wear, and it was readily agreed upon that in order to get the most use of any picker it must be properly installed, parallel, and not expected to do work that should be done with the binders and checking arrangements.

In discussing the percentage of relative humidity best suited for weaving, it was found that mills were varying from 65 to 85 per cent relative humidity, with the higher percentage found in mills weaving fine count goods.

A member asked how he could avoid having excess sloughed filling on Monday morning after standing his room over the week end. He stated that he did not keep his room conditioned and it was suggested that he run the humidifiers a few hours during the standing period to try to maintain operating conditions as closely as possible to prevent the filling as well as leather parts of the loom from drying out. It was thought that this would not only prevent the filling from sloughing so badly, but would also give him a quicker start-up due to all conditions being fairly close to normal.

"Fashions in Cottons!"



as sold in full-color ads appearing in 24 leading magazines month after month

★ Started in January 1948, this magazine series has been steadily in the vanguard of today's big demand for Fashions in Cottons.

Month after month after month, it has featured in gorgeous color the top Fashions in Cotton by top designers in cotton.

In 24 women's magazines with a combined circulation of over 30 million!

Aggregating 180,000,000 impressions ... more than 4 for each American woman ... during 1948!

-And even more during 1949!

—Vigorously promoting what fashion editors predict will be the greatest cotton year in fashion history.

And assuring women's preference for cotton by teaching them how to restore lovely mill-fresh finish.



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17 BATTERY PLACE, NEW YORK 4, N. Y.

SUPPLIERS OF STARCHES FOR THE TEXTILE INDUSTRY

Materials Handling

The Philadelphia Show And Conference

THE broadest conference on the problems of materials handling in the various industries of the country ever to be conducted will be held at Convention Hall, Philadelphia, Jan. 10-14, inclusive, under the sponsorship of the materials handling and management divisions of the American Society of Mechanical Engineers, it has been announced by Curtis H. Barker, Jr., general chairman of the conference and president of the A. S. M. E. materials handling division.

The conference will be held concurrently with the Materials Handling Show where 225 exhibitors will display the latest models of hand trucks, lift trucks, conveyors, hoists, monorails, portable elevators, stacking units, cranes, tractors, trailers, fork trucks, skids and pallets and their respective accessories. The show, sponsored jointly by the A. S. M. E. division and the Materials Handling Institute, will be one of the largest annual industrial expositions in the country, covering more than 100,000 square feet of net exhibit space. Admission to both the exhibits and the conference will be without charge but registration is required. Advance registration cards may be obtained from Clapp & Poliak, Inc., exposition management, 350 Fifth Avenue, New York 1, N. Y.

Topics to be considered include developments in bulk handling; work simplification; opportunities for distribution economies; handling in the future; top management's interest in handling; co-ordination of handling equipment in a manufacturing plant; the growing importance of materials handling in our present economy, and the user's approach to the materials handling engineer. Also, a symposium on equipment; handling problems in a steel warehouse, as well as refrigerated warehouses; automatic pallet loading; modern engineering methods and their relation to handling; materials handling problems in the manufacture of light perishables and semi-perishables; co-ordination of materials handling engineering with related engineering practice; the economics of materials handling; opportunities for sales engineering, and the outlook for the materials handling industry. The program follows:

"Prologue Session," Monday, Jan. 10, afternoon.

Chairman, Bernard Lester, sales consultant, New York, N. Y., program committee chairman, A. S. M. E. materials handling division. "Message of Welcome," Mr. Barker; "Outlook for the Industry," Dr. Charles F. Roos, president, Econometric Institute, New York; "Opportunities for Sales Engineering," Ezra W. Clark, materials handling consultant, Battle Creek, Mich.; "The User Talks to the Sales Engineer," T. O. English, assistant general purchasing agent, Aluminum Co. of America, Pittsburgh.

"Opportunities for Management," Tuesday, Jan. 11, morning.

Chairman, Mr. Barker. "The Importance of Materials

Handling," keynote address by Mr. Barker. "The Economies of Materials Handling," Stevens H. Hammond, president, Whiting Corp., Harvey, Ill.; "The Materials Handling Engineer, His Qalifications, Functions and Relation to Management," T. L. Carter, materials handling engineer, American Cyanamid Co.

"Improvements In Methods," Tuesday, Jan. 11, afternoon.

Chairman, H. B. Maynard, president, Methods Engineering Council, Pittsburgh, and member executive committee, A. S. M. E. management division. "Modern Methods Engineering and Materials Handling," by the chairman; "Work Simplification," Allan H. Mogensen, New York; "Opportunities for Distribution Economies—Industry's Recommendations to Common Carriers." A symposium—for industry, Neil Loney, industrial consultant, Detroit; for the railroads, Fred Carpi, vice-president, traffic, Pennsylvania Railroad, Philadelphia; for the highway carriers, W. F. White, engineer, Great Southern Trucking Co., Jacksonville, Fla.; for the national point of view, J. W. Milliken, associate editor, Railway Age, New York.

"Case Studies," Wednesday, Jan. 12, morning.

Chairman, J. B. McGinn, division engineer, American Viscose Corp., Philadelphia, and president, Materials Handling Society of Philadelphia. "Efficient Co-ordination of Materials Handling Equipment in a Manufacturing Plant," C. M. Harris, production manager, Electrolux Corp., Old Greenwich, Conn.; "Application of Methods Engineering and Equipment Design," Donald E. Farr, engineering supervisor, Methods Engineering Council, Pittsburgh; "Ups and Downs of Handling in Multi-Story Warehouses," D. O. Haynes, vice-president, Merchants Refrigerating Co., New York.

"Panel Discussion," Wednesday, Jan. 12, afternoon.

Chairman, Harry E. Blank, managing editor, Modern Industry, New York. "Industrial Relations" (speaker to be announced); "Cost Control," Emil Gibian, chief industrial engineer, Thompson Products, Inc., Cleveland; "Lighting," Arthur A. Brainerd, illuminating engineer, market studies and applications, Philadelphia Electric Co., Philadelphia; "Building Construction" (speaker to be announced); "Safety," D. M. Rush, manager, central planning department, Ansco division, General Aniline & Film Corp., Binghamton, N. Y.

"Advances in Technique," Thursday, Jan. 13, morning.

Chairman, Jervis B. Webb, president, Jervis B. Webb Co., Detroit. "Automatic Pallet Loading," M. Landon, engineering department, Sun Oil Co., Philadelphia; "Equipment, Layout, Operation Processing," W. J. Dernberger, superintendent, materials handling engineering, Ford Motor

Co., Dearborn, Mich.; "Developments in Bulk Handling," E. A. Wendell, sales manager, Link-Belt Co., Chicago.

"Equipment Symposium," Thursday, Jan. 13, afternoon.

Chairman, J. D. Sheahan, secretary-treasurer, Drake, Startzman, Sheahan, Barclay, Inc., New York. "Developments in Conveyor Design and Application"-Association participating: Conveyor Equipment Manufacturers Association, Washington, D. C., R. C. Sollenberger, executive secretary of the association; "Developments in Crane, Hoist and Elevator Design and Application"-Association participating: Overhead Traveling Crane Institute, New York; A. R. Walkeley, general sales manager, Shaw-Box Crane and Hoist Division, Manning, Maxwell & Moore, Inc., Muskegon, F. M. Blum, sales manager, Overhead Traveling Division, Harnischfeger Corp., Milwaukee; "Developments in Industrial Truck Design and Application"—Association participating: Electric Industrial Association, Long Island City, N. Y., together with leading manufacturers of gas trucks; Robert Pratt, chief industrial engineer, General Foods Corp., New York, Lee C. Daniels, chief engineer, Towmotor Corp., Cleveland, J. C. Erickson, chief engineer, The Elwell-Parker Electric Co., Cleveland; 'Developments in Marking and Stenciling," H. W. Hempel, vice-president, Marsh Stencil Machine Co., Belleville.

"Materials Handling Tomorrow," Friday, Jan. 14, morning.

Chairman, John B. Thurston, Wallace Clark & Co., New York. "The Biggest Handling Job in the World," Col. James Glore, Transportation Corps Board, New York Port of Embarkation, Brooklyn, N. Y.; "Tomorrow in Air Handling," Parkman Sayward, general sales manager, Slick Airways, Inc., San Antonio; 'Lessons from the Berlin Air Lift" (speaker to be provided by the U. S. Air Force).

Maintenance & Engineering

A New Mill Built Under Difficulties

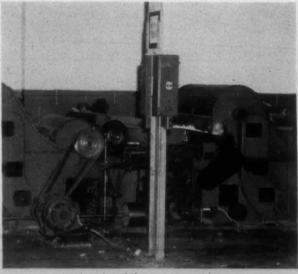
By JAMES T. MEADOR

THE plant of the Marshall Mfg. and Processing Co. at Charlotte, N. C., is an example of what the men of the textile industry can do under adverse circumstances, such as scarcity of material, complete absence of floor space suitable for textile mill operations, and scarcity of operating

Dazel M. Williams, general manager, with Charles Ponder, textile engineer, and W. A. Powell, superintendent, have attained success in a very interesting way. Beginning in January, 1948, the Leading Embroidery Co. of North Bergen, N. J., through Mr. Williams, acquired two warehouse buildings which were erected during the war by the United States Army Quartermaster Corps and operated as a remote warehouse until used by the War Assets Administration and subsequent sale to the company. These buildings were identical in type of construction and floor area, each being 155 feet wide and 446 feet long, one-story, which has been supplemented by addition, giving them a total of 71,000 square feet in the building now used as a mill, and somewhat less in the other building. The floor was of sixinch reinforced concrete slab, broom finished. There were no utilities—only a sprinkler system, which fortunately was approved by the insurance company for textile mill occupancy. There were no lights, no heat, and no paint on any surface. The walls were of concrete block masonry, the columns were "H" type structural steel and the roof was four-inch concrete slab supported by bar joists on four-foot centers spacing. The floor required leveling and smoothing for use as a textile mill and this in turn required a new surface. The problem was solved by building up the floor to a level point with a minimum thickness of three-quarters of an inch for an added surface of patented magnesite ma-

terial, which provided a dark red finish that has held up extremely well considering the truck and box traffic that it has been subjected to.

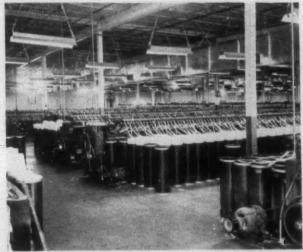
Duke Power Co. supplies electric power from a 44,000volt line through a bank of three 400-KVA transformers equipped with lightning protection and delivering at 550 volts, three-phase, 60 cycles, to the mill service, which is taken care of by means of a group of 600-ampere, 600-volt, single-throw, three-pole, fusible switches located in the switch room in connection with the machine shop. The mill is equipped with fluorescent lighting of the double 40-watt size fixtures. The humidifying and heating system



are combined with an air washing and duct arrangement which provides 29 complete air changes per hour throughout the mill, with heating coils in the duct at the entry of the air into the mill from the washing system. Louvres are provided in the outside walls for the pressure to be equalized and the air to escape. This system provides suitable humidity in the card room and spinning rooms and other areas of the mill, and is supplemented in the weave room only for greater humidity by means of atomizers, which operate in the openings of the air duct.

The boiler and heating plant consist of a 150-horsepower cil-burning steam generator of the flash type with a 15,000-gallon storage capacity using No. 5 fuel oil. The usual condensate return system is employed for boiler feed water

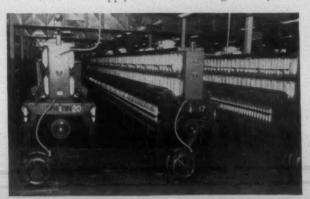
supply.



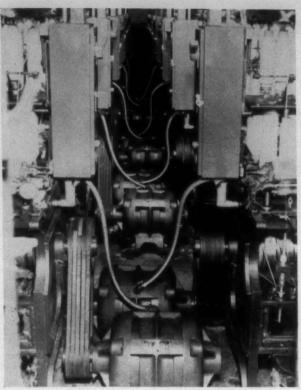
Showing long-draft speeders and individual drive motors.

The cotton storage space has a capacity of 2,300 bales and the cotton used is $1\frac{1}{16}$ -inch strict bright low middling with the finished product being surgical gauze of 18-14 construction, 42 inches wide.

The opening room and the picker room are combined with an arrangement employing two feeder hoppers and one waste hopper with the usual blending table, or belt conveyor, feeding a Superior cleaner, which in turn feeds the vertical opener with No. 2 cage section and thence to the picker hopper, to a single process two-beater picker with synchronizer. All controlled by automatic feed regulators which control the supply from the blending table by start-



Another application of individual drive motors.

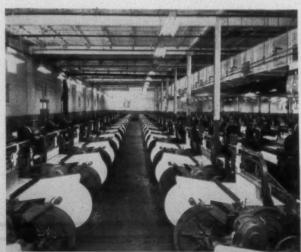


Nesting of motor drives on spinning conserves floor space.

ing and stopping the feeding motors through the use of magnetic switches and mercury tube pilot switches on the picker hopper. This picker is equipped with the moisture control lap weighing system.

The card room consists of 28 40-inch cards equipped with the vacuum stripping system and ball-bearing line shaft drive, which, incidentally, is the only line shaft drive in the mill. The drawing is taken care of by a two-process layout with cushion top rolls and driven by individual motor drives. There are ten slubbers, of one-process type, eightinch by four-inch superdraft, with individual motor drive and 152 spindles each.

The spinning room is equipped with 22 filling frames of 252 spindles each and a total of 29 warp frames of 228 spindles each, making a total of 12,300 spindles with wooden quills on filling and wooden bobbins on warp spinning. The filling frames have an eight-inch traverse, while



View of weave room along beam alley; beam heads are 24-inch.



the right start for a long life



HIGH-SPEED PRODUCTION of strong uniform yarns—that's what modern machines like this are built for!

And they'll deliver top performance indefinitely when lubrication is efficient. Accurately finished parts fitted with close tolerances must have the protection of the best lubrication to insure precision work and continuous operation.

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He will recommend the lubricants and application methods exactly suited to your equipment and operating conditions. Then, periodically he will check the performance of each machine and suggest any changes in lubrication practice that are necessary to provide for new operating conditions.

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This kind of lubrication service has a real dollar and cents value to you. Write, wire, or phone your nearest Gulf office today and ask a Gulf Lubrication Engineer to call.

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the warp frames use 8½-inch traverse. All cylinders are eight-inch diameter and equipped with ball bearings. Individual motors and V-belt drive with magnetic switches are standard equipment on each frame. A departure here from the usual practice is that of using push-button stations for starting and stopping the frames rather than by the here-tofore customary use of shipper rods and shipper rod switches.

From the warp spinning the yarn goes to the Barber-Colman automatic spooler and warper, from where the warps then go to the slasher, which is equipped with double-head delivery. After this the beams go to the automatic tying-in machine before being installed in the various looms. An interesting sidelight on this operation is the fact that the beams are of 24-inch diameter heads. In this area the partition is built across the mill between the weave room and the spinning room for the control of humidity in the heavy areas. The weave room is equipped with 246 Draper Model "E" 40-inch looms, being driven by one-horsepower loom motors.

An interesting fact in connection with the difficulty of getting this mill in running shape is the method employed to anchor machines to the floor without damage to it. All machinery therefore is held to the floor by means of felt pads and cement without damage to floor at all, which at the same time greatly reduces vibration of equipment due to what might otherwise be faulty anchoring, which might be caused by loose anchors in the concrete surface.

An sight on the progress made in converting this unsuitable warehouse building to a going and well-operated textile plant can be gained by these facts. The floor surface was first applied the latter part of February, 1948, and the first shipment of manufactured products was made in August—approximately five months later with production picking up constantly week by week since then.

Heating and Ventilating Exposition Slated

Many advances in air conditioning facilities will be disclosed at the ninth International Heating and Ventilating Exposition, Chicago Amphitheatre, Jan. 24-28. The exposition has mobilized a display in which more than 300 manufacturers of complete systems and specialized components are showing their latest products under the auspices of the American Society of Heating and Ventilating Engineers, whose 55th annual meeting is being held during the same week. Every kind of basic equipment for heating, ventilating and air conditioning will be listed in the official catalog, including variations in size and type, due to the wide dissimilarity in both the physical limitations and the temperamental needs to be served in treating different sized spaces in various types of buildings.

Evolution in heating apparatus is the basis of the entire industry and there are many single purpose heating systems. Many ventilating systems are designed exclusively for the purpose of moving volumes of air. Air conditioning brings in cooling for Summer, as well as heating for Winter and adds further refinements, such as air cleaning, by one of several methods. All objectives may be reached by combining separate purpose systems, or combination equipment is available in all fields of application through highly devel-

oped but often quite simple apparatus, which takes care of the entire job.

There seems to be an upturn in the offering of separate room cooling equipment. Many exhibitors have been making and installing such systems for years: new ones have now been added and there has been considerable activity in the way of redesign and improvement of existing models.

Industrial 'Seismograph' Records Vibration

A new tool to help engineers in their continuing battle against vibration, a portable "seismograph" for use in industry, has been developed by the Barry Corp. of Cambridge, Mass., and the Westinghouse Electric Corp., Baltimore, Md. The first application has been made in measuring the vibration of walls in a textile mill. Because of its compactness and easy portability, it is expected that the instrument may be used to analyze vibration problems on machinery and other equipment as well. The industrial "seismograph," so-called because it utilizes the same principle employed in instruments registering earthquake shock, is a combination of a special seismic pendulum mounting designed and manufactured by the Barry Corp., and the Westinghouse Vibrograph.

The Vibrograph, about the size of an ordinary box camera, ordinarily embosses a permanent record of vibrations on a transparent film. It records over the range of 600 to 15,000 cycles per minute and amplitudes as low as one ten-thousandths of an inch or as great as one-sixteenth of an inch. Mounted in the Barry frame, vibrations with a frequency as low as 120 cycles per minute can be measured even in swaying buildings where no steady reference point is available. The Barry seismic pendulum provides a Vibrograph support whose natural frequency is lower than the frequency of the vibration to be measured. The Vibrograph thus tends to remain stationary in space. The pendulum is comprised of a triangular arm supported from a vertical column by means of frictionless elastic hinges. The low natural frequency is attained by mounting the Vibrograph relatively close to the hinges and setting a large mass in a pan at the free end of the arm. The Vibrograph includes a prod adapted to contact the structure whose vibration is to be measured. This contact is achieved, in the case of the wall of a building, by setting the seismic pendulum in such a position that the prod contacts the wall.

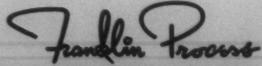
Mills Oppose Power Firm's Coal Clause

Twenty-six North Carolina textile plants, served by the Carolina Power and Light Co., have petitioned the State Utilities Commission to subtract rather than add a dollar to the company's industrial fuel clause. The petition claimed that the base price of coal used in the fuel clause computation should be changed from \$7 to \$8 per ton rather than from \$7 to \$6 as Carolina Power and Light Co. has proposed. The firm's present industrial fuel clause, adopted last Spring, is limited to customers using 15,000 or more kilowatt hours per month. Customers who are affected, chiefly mills and other large business establishments, now pay an additional .0065 cents per kilowatt hour for each ten cent change in the cost of coal from a fixed base of \$7 per ton.

HEN, AS NOW, COLOR SOLD TEXTILES



Over a period of 5000 years from the discovery of silk weaving by the Chinese, the charm and variety of their colored embroideries remained one of their greatest artistic achievements. Since 1815, when trade was established with the West, these designs have exerted an influence culminated in the beautiful adaptations of the 19th Century. Then, a now, color sold textiles.



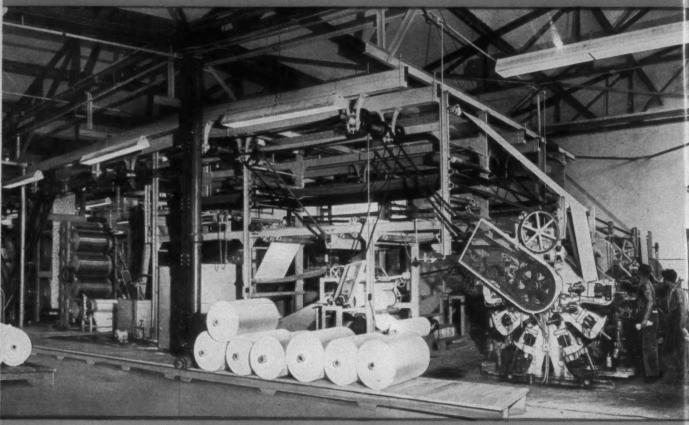
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Close Control of Printing with Latest Butterworth Machines









Large photo above shows recent installation of Butterworth 6-color and 8-color Printing Ranges. Illustrated at top and left of page are vignettes of Butterworth 6-color, 8-color, 12-color and 14-color Printing Machines.

The new 6 and 8-color Butterworth Printing Machines permit close control of printing performance for cotton, rayon and silk fabrics at high speeds. Six and eight color shades in multiple patterns and small figure designs are registered accurately by means of precision-machined nips. A heavy, balanced rubber covered printing cylinder combined with pneumatic pressure gives greater control and more uniform printing results. Roller

bearings insure smooth, high-speed operation. Machines are compact and of modern design. Side frames are ruggedly constructed for heavy duty.

With the Butterworth 6 and 8-color Printing Machines fabrics are printed in record time, ready for conversion into dresses, blouses, drapes and scarves. Butterworth Printing Machines available from 1-color to 14-colors. Call or write today for complete details.

BUTTERWORTH

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Bleaching, Dyeing & Finishing

Trends In Fabric Processing

By FRANCIS TRIPP, B. Sc., M. S., Ch. E., Head of Chemistry Department, New Bedford (Mass.) Textile Institute

SEWING, singeing, scouring, mercerizing, bleaching and drying of woven cotton fabrics is the first stage of the so-called finishing operation. The second stage relates to obtaining the desired color, feel, surface appearance, weight, width, and residual shrinkage in the fabric.

The first stage of finishing therefore is a preparation, or "prepare," for what is to follow in subsequent operations. We hear a great deal today of new modern methods of "prepare" but to know what is really new requires the understanding of what has generally been considered very good in the past. We can pass the sewing of the gray goods with just a remark that sewing machines have improved in quality and speed of sewing and hence the "laying out" of the fabric sewed end to end is greatly increased over olden days.

Singeing is the first step of the finishing process that begins to transform the gray goods into fabric of different appearance. In this operation a gas flame or sometimes heated plate burns the fuzz or lint from the surface of the fabric in order that the fabric will have a smooth unblemished surface after finishing. The fabric passes through the singeing machine at a speed of 320 yards per minute and the surface of the cloth is in contact with the flame for about one four hundredth of a second. This is sufficient time to ignite the lint particles. During the past several years newly-designed burners have come into use always with the trend to cut down on gas consumption. Refractory brick and infrared burners are employed in the latest singeing equipment

Scouring is essentially the removal of all foreign materials from the woven fabric which leaves the fabric in a clean, absorbent condition. There are literally hundreds of scouring agents on the market if we go by trade names. However, cotton scouring compounds can be classed in the following divisions, namely: alkalies, soaps, synthetic detergents, wetting out agents, and water conditioning materials. We will deal with these chemicals later.

The foreign material or materials in woven cotton fabric that have to be removed are the natural cotton wax, warp sizing compounds which consist of potato starch, corn starch, sulfonated tallow, sulfonated oils and sometimes certain hydroscopic agents. There are also motes that show in the gray woven material as little brown specks. These are made up for the most part of fragments from the seed coating, and the woody or heavy portion of the cotton plant that has not been completely removed during ginning, carding and combing. All of these materials must be removed in the scouring process with the exception of the motes which are only softened up during scouring and are later removed by bleaching.

The natural wax in cotton is the substance that makes unscoured material resistant to wetting by water. The wax content in cotton runs from 0.5 to 0.7 per cent. A good scour should remove this wax down to a 0.1 per cent content and preferably to a 0.05 per cent content. When the waxy material is this low then the fabric will be absorbent and a drop of water dropped onto the surface of the fabric will instantly penetrate.

The sizing agents present can also be removed to a great extent by scouring and emulsifying agents but in modern continuous production the use of the starch converting enzymes are made use of to reduce the starches to a water soluble condition. This "malting" or desizing step is usually employed prior to scouring but many millions of yards of cotton are scoured without having had a malt desize.

In commercial practice there are many factors that determine the length of "prepare" and the number of steps in the "prepare." Two of these are the shade the fabric is to be dyed and the other is the economic aspect.

The materials used in scouring cotton piece goods are many as previously stated but the most important single chemical compound is caustic soda. This one compound performs more work than any other chemical and with its very low price of five cents per pound makes it a much-sought-after commodity. The use of caustic soda, as mentioned, goes back to olden days and now with the trends toward continuous high speed scouring caustic is the one chemical that allows the new fast machines to function.

Until a few years ago most cotton fabric was scoured or "boiled-out" in kiers. A kier is a large cylindrical iron tank usually about eight feet in diameter and 12 feet in depth. It has a grate on the bottom which holds the fabric to be scoured and allows the "boiling-out" liquor to drain out of the bottom where a centrifugal pump returns it to a spray pipe in the top of the kier where it is sprayed over the top of the cloth. Between the pump and the top of the kier the liquor passes through a multitubular heater and is brought up to proper temperature before entering the kier again. Kiers are rated two-ton, five-ton, and higher according to the weight of cloth that they hold. There are "open" and pressure kiers according to whether they are sealed up after the cloth is put in or whether they are left open. After all of these years there is still some varied opinions as to whether an "open boil" is better than the closed boil with pressure. The pressure usually is 12 to 15 pounds. Of course the pressure boil requires less time than the open boil which in many cases is of advantage. The average open kier boil at 212° F, is for a duration of eight hours as against four hours for the pressure boil. Cloth is fed into the kier now by automatic pilers which neatly plaits the roped fabric into the kiers and at the same time wets the cloth with a weak solution of caustic soda. This aids materially in packing the cloth down and later aids in getting proper wetting out by the kier liquor. A three-tone kier will hold 30,000 yards of broadcloth or 60,000 yards of

lighter weight goods.

After the cloth is loaded into the kier the top of the cloth is covered by a heavy covering cloth and the chains are crossed over the top of the cover and made fast to brackets on the kier wall. The kier scouring liquor is then forced up from the bottom through the plaited fabric which pushes out the occluded air as the liquor rises toward the top. Enough liquor is flowed in to just cover the cloth. It is real essential to force all of the air from the kier liquor in order to eliminate any air pockets which would tend to produce oxycellulose in the fabric.

In all kier boiling solutions the base liquor is caustic soda of approximately two per cent strength. Every finishing plant adds to this liquor other scouring agents that tend to aid the caustic soda liquor in scouring the cloth. Some of the agents are soluble pine oil, flake soaps, silicate of soda, trisodium phosphate, Calgon, tetrasodium pyrophosphate and many of the newer synthetic detergents. The ultimate objective in all cases is to provide caustic soda liquor, a scouring agent and a water conditioner or sequestering

Prior to the past eight years it was considered ethical practice to be positively sure that the cotton fabric was given a perfect "bottoming" as it is called by plant bleachers and dyers. This meant that nearly all non-cellulosic materials be removed from the cloth. Many bleachers argue that the "lime boil" which is produced by the use of calcium hydroxide instead of caustic soda as the base kier liquor produces white fabric that is less likely to turn creamy or yellow while the cloth remains in storage. The thought occurs that the "lime boil" with its acid sour that follows goes back to olden days in England where millions of yards of fabric were scoured and bleached weekly for exports to distant lands. In other words finished fabric was accumulated, packed and held until export markets were favorable. The long hot boat trip to the distant markets in warm



DISTRICT ENGINEERS attending a sales engineering conference of Industrial Ovens, Inc., at Cleveland, Ohio, Oct. 12-14, are shown inspecting one of the company's newly-designed machines for coating textiles. Pointing out some of the features of the machine is C. A. Litzler, president of Industrial Ovens.

countries would subject the fabric to a prolonged storage under abnormal heat. In those days it was the first concern that scoured and bleached fabric resist the above stated conditions even at an extra cost in processing. Evidently the "lime boil" must have given slightly better insurance against yellowing than the caustic soda boil.

Today the bleacheries using the "lime boil" can be counted on one hand since the caustic boil has proven that it fits into today's faster processing much better. The writer has seen very few pieces of white fabric processed by modern methods that will not stand an accelerated ageing test. Finished fabrics today are not held in packed cases in most instances for longer than one year. Finishers, converters, vertical set-ups and retailers all are concerned with keeping goods moving since today's competitive world requires that goods be converted to money in order that working capital will not be diminished.

Nearly all of the finishing plants have their laboratories check the fabric as it goes from one process to another. Pieces are cut from the fabric every few thousand yards and properly labelled. These pieces are cut out near a seam and are not cut across the width of the cloth any wider than 15 inches as it would necessitate the resewing of a new seam. Patches of scoured goods are taken to the laboratory where they are washed with distilled water or very good tap water for about five minutes and dried with the aid of a flat iron. They are then put in the conditioning room for 12 hours. Small pieces are then dried in the oven at 105° C. until they are at constant weight. They are then ashed in a porcelain or platinum crucible and the weight of ash in the fabric determined. In a properly scoured piece of cotton fabric the ash content should not be higher than 0.07 per cent.

A ten-gram sample of the fabric previously dried to constant weight is then put into a Soxhlet extractor and extracted with petroleum ether for six hours and the ether extract determined. The ether extract will consist of the natural cotton waxes that remain in the fabric. In a properly scoured piece of fabric the ether extract should be less than

0.01 per cent.

It is only common sense to reason that after a good scour that the scouring liquor should be drained from the kier and the kier filled with hot water which contains 0.2 per cent tetrasodium pyrophosphate. This wash water is circulated through the goods and the saponified waxes, pectins and other impurities are removed from the cloth. The wash is usually conducted at the boil for a duration of four to six hours. The kier is then ready to be drained and the cloth pulled out to the next step which is the bleach house in most cases.

As is common knowledge, the new continuous scouring and bleaching units are gaining headway. Instead of the eight-hour kier boil followed by a six-hour hot water wash the continuous units scour the cotton goods in two hours and wash the fabric in the matter of minutes. The continuous units on the market today are the Du Pont rope and Du Pont open-width units, Becco steam bleaching unit and the Mathieson open-width triplex, duplex and single open-width unit. In all of these units the chemical that performs most of the scouring function is caustic soda.

In the plants that have only recently started to operate and for plants on commission work where rapid deliveries are required it is more economical to employ these new continuous machines. Smaller plants who possess their own kiers and gray goods and are engaged in routine work where



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the speed of the continuous units is not too vital oftentimes find that a kier provides a good storage spot.

In regard to the kier boiling liquor, the volume used per kier is in the ratio of 60 gallons to 100 pounds of cloth. The cloth must be covered to a depth of six inches. As formerly stated a solution of two per cent caustic soda should be used. The cloth is wet when it is loaded into the kier. The liquor as made up should be 2.5 per cent or higher to allow for dilution after circulation is started.

Soap added to the caustic soda solution greatly enhances the scour and helps remove the waxes. One-quarter per cent of tallow chip soap on the weight of goods in the kier will produce a maximum effect. It is also best to use oneeighth per cent of a sequestering agent to prevent the formation of calcium, magnesium or iron soaps. Sodium tetraphosphate is a good sequesterer to use. Some of the sequestering agents break down at elevated temperatures so care has to be taken when choosing one of these. It is always advisable to add a sequestering agent like Calgon, tetrasodium pyrophosphate, sodium tetraphosphate, or tripoly phosphate to the water that is used in washing the kier after the boil. Generally a four-hour hot water wash follows the kier boil and a quarter per cent on the weight of the cloth of one of the above sequestering agents will produce goods that are free of scum and ready for easy rinsing in the cold water of the bleach house which follows the kiering operation.

There are many scouring auxiliaries on the market today in the form of synthetic detergents. Care must be taken in choosing the proper type of synthetic detergent as some of these are salted out of solution by hot caustic soda.

A typical formula for kier boiling is as follows: 2,000 gallons of 2.5 per cent caustic soda solution to which is added 30 pounds of tallow soap flakes and 12 pounds of tetrasodium pyrophosphate.

Soluble pine oil is still used in scouring operations. Generally, pine oil is made soluble by addition of 20 per cent of sulfonated castor oil (Turkey Red Oil). Many kier and open dye box operators still feel that pine oil is essential to aid the scouring agents by wetting out the goods and thus make the scour more efficient.

The continuous units that are being used and are replacing kiers in the large commission plants still have the same function to perform in the scouring of the gray cotton goods and although the mechanics of the procedure are different the chemistry of the operation is still the same.

Find More Uses For Bonded Fabrics

Bonded fabrics, a new type of material in which the fibers are held together chemically rather than mechanically, are now being used for the manufacture of window shades, oil cloth, wall paper, adhesive tape, linoleum and artificial leather, according to a paper delivered in New York City Dec. 3 before the textile division at the annual meeting of the American Society of Mechanical Engineers. Presented by R. B. Seymour, director of special products research of Johnson & Johnson, and George M. Schroder, head of the development department of Henry H. Frede and Co., Inc., the paper pointed out that for many years artisans and technologists have experimented with many kinds of cloth and paper. In all such investigations, the resulting products re-

sembled either cloth or paper. In recent years, however, textile technologists have been able to bridge the gap between these two fields by the development of new matrials called bonded textiles.

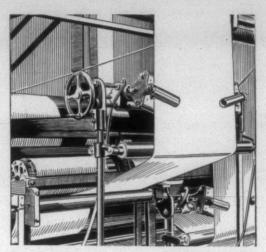
These products are new," the authors stated," but are already being manufactured by at least six different firms under such names as Masslinn, Steralon, Viskon and Webrel. Many other firms are making plans to enter the field and a score of companies are studying applications of these novel materials, they said. "Because of the economics involved in the production of bonded fabrics in contrast to woven textiles, the bulk of the material produced has been used for expendable items such as towels, tape, diapers, wiping cloths, lining for clothing and caskets, napkins and hospital sheets. As industry becomes better acquainted with bonded fabrics, it will visualze the true function of these materials and place less emphasis on cost. Originally, plastics were considered as substitutes and novelty items but as the industry matured, it adopted the slogan 'plastics where plastics belong' and a similar trend may be expected to develop in the bonded fabric industry," the authors said. No one bonded fabric can be considered as a universal material, but like woven fabrics, felt and paper, which are known to have specific applications, different bonded fabrics can be produced for definite end uses, they pointed out.

There are three different ways of cementing the fibers in the bonded fabrics, and all are being used commercially, the paper stated. In one process cotton or rayon fibers are formed into a lap or sheet and the fibers are softened by chemicals and bonded together under pressure. The chemicals used for the bonding process are similar to those used for converting wood pulp to rayon. In another process, the lap or sheet is made from a blend of fibers. In this case some of the fibers can be sufficiently softened by heat to bond the cellulose fibers together. In the most widely used process, solutions of plastics are added to the lap or sheet and these plastics adhere the fibers together. Either textile or paper making machinery may be used. In discussing web formation, the authors said that almost any fiber can be used for the primary fiber. "Wool and asbestos have been used for specific purposes but the primary fiber in most bonded fabrics is cotton or viscose rayon," they stated. "The main requirement is that the primary fibers do not soften completely during subsequent operations. These processes can use fibers which are too short for the textile industry and thus can utilize mill waste, but the strongest products are produced from the longer fibers."

Finishers To Hold Annual Parley Jan. 27

The National Association of Finishers of Textile Fabrics will hold its 35th annual convention Jan. 27, 1949, at the Hotel Pennsylvania, New York City, it was announced recently by Alice C. Moore, secretary.

Ernest J. Conway, president of Bocon Chemical Corp., has announced the issuance of the first policy of its kind in the mothproofing industry. One of the larger insurance companies has just issued a policy backing the unconditioned guarantee of the Bocon Chemical Corp. for all fabrics or garments carrying the Boconize button.



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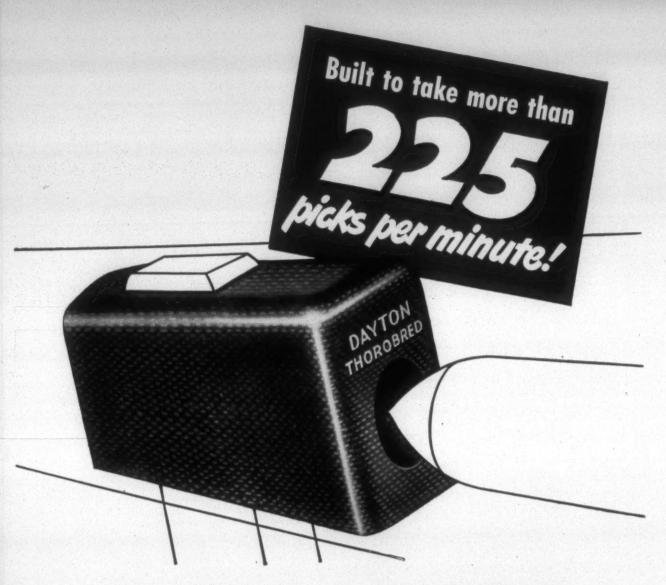
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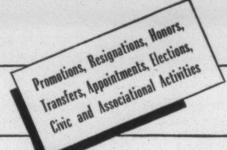
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PERSONAL NEWS

J. C. Sproull has succeeded A. W. Hicks as assistant superintendent of California Cotton Mills Co., Uniontown, Ala.

Ernest H. Dreher, who resigned recently from Rhodhiss (N. C.) Cotton Mills Co., a subsidiary of Pacific Mills, has joined Mount Vernon-Woodbury Mills at Baltimore, Md. Prior to his affiliation with Rhodhiss Mr. Dreher was connected with the textile research department of American Viscose Corp. at Marcus Hook, Pa. At Rhodhiss he was in charge of fabric research and development.

R. A. McCluney of St. Pauls, N. C., is now overseer of carding at Hartsville (S. C.) Cotton Mill.

Hubert L. Thompson, formerly connected with Greenwood (S. C.) Cotton Mill, has been appointed superintendent of weaving at Borden Mills, Inc., Kingsport, Tenn. He succeeds Robert H. Turner.

John Platt, formerly assistant to Dwight L. Thomas, manager of Springs Cotton Mills' plants at Fort Mill, S. C., has been transferred to Kershaw, S. C., where he will be assistant to John D. Green, manager of the Springs plant there. . . . Hood McChord has been promoted from trainee at Fort Mili to weave room second hand at Kershaw. H. Caswell has succeeded J. A. Ferguson as superintendent of the Eureka Plant of Springs Cotton Mills at Chester, S. C. Mr. Caswell previously was with Nashua (N. H.) Mfg. Co., and Mr. Ferguson is now superintendent of Monarch Mills' Ottaray Plant at Union, S. C. . . . Three new vicepresidents have been elected by the Springs Cotton Mills board of directors. They are W. C. Summersby, in charge of gray goods; H. R. Mathewson, in charge of finishing; and E. L. Scruggs, in charge of engineering.

E. J. Schiller, Jr., formerly application engineer with Crocker Wheeler Electric Mfg. Co., is now application engineer and Southern sales representative with Winsor and Jerauld Mfg. Co. and will be located at the home office of the firm in Providence, R. I., until a Southern location can be established

H. L. Turk is now general superintendent and H. L. Edwards dye plant superintendent at Boaz (Ala.) Mills, Mr. Turk replaces Richard Pope.

John R. Hartman, a 1948 textile engineering graduate of the North Carolina State College School of Textiles, has joined the sales staff of Terrell Machine Co., Charlotte, N. C. From headquarters at Greens-

boro, N. C., he will serve Terrell accounts in Virginia, Piedmont and eastern North Carolina.



Robert T. Stutts, left, has resigned as superintendent of the Woodside Cotton Mills Co. plants at Fountain Inn and Simpsonville, S. C., to become president and treasurer of Carolinian Mills, Inc., High Shoals, N. C. He was elected to the

latter positions at a recent meeting of the Carolinian board of directors following the transfer of O. E. Reading, previously president and treasurer, to the home office of Ely & Walker Dry Goods Co. in St. Louis, Mo. Mr. Stutts is the current president of the Southern Textile Association. . . . Charles A. Barrett, formerly assistant superintendent of Mathews Mill, Greenwood, S. C., has joined the Woodside chain as superintendent of its Fountain Inn and Simpsonville plants.

Miss Bertha Green, secretary of Textile Hall Corp. and one of the "prime movers" of the semi-annual Southern Textile Exposition, was taken ill on a recent trip to New York City, but has since recovered and returned to her home at Greenville, S. C.

E. B. Wheeler has been appointed sales representative in the Carolinas and Georgia for Standard Fabricators, Inc., of New York City, manufacturer of cotton and wool dyeing machines, extractors and dryers. His headquarters will be at Charlotte, N. C. Mr. Wheeler will continue to act as Southern representative for W. H. & F. Jordan, Jr., Mfg. Co. of Philadelphia, Pa., with which firm he has been connected for a number of

Earl Sappenfield retired Dec. 1 as foreman in the engineering department of P. H. Hanes Knitting Co., Winston-Salem, N. C. He had been employed by the company 31 years.

Arthur D. Tousignant has joined the supervisory staff of Spofford Mills, Inc., Wilmington, N. C. He previously was with Hartsville (S. C.) Cotton Mill.

R. H. Atkinson, personnel director at S. Slater & Sons, Inc., J. C. Clark, superintendent at Judson Mill and M. V. Freeman, overseer of carding and spinning at Poinsett Plant of Brandon Corp., have been named as a nominating committee to choose candi-

dates for official posts next year in the Greenville (S. C.) Textile Club. Mr. Atkinson was named chairman of the committee.

W. H. McGaha is now superintendent of Saratoga Victory Mills at Albertville, Ala. The position previously was held by W. H. Esslinger.

H. S. Harper has succeeded L. L. Levy as superintendent of Bonita Ribbon Mills, Brewton, Ala.

W. A. Kennedy, president of WAK Industries, Charlotte, N. C., recently was elected president of the Charlotte Engineers Club for 1949.

A. A. Drake, executive vice-president of Bibb Mfg. Co., Macon, Ga., was honored Nov. I on the occasion of his 40th anniversary with the firm.

R. H. Dickinson, formerly superintendent of the Acworth, Ga., plant of Clark Thread Co., has been appointed superintendent of the Clark plant at Albany, Ga., and has been succeeded at Acworth by L. W. Flynn. . . . Other changes announced recently at Acworth are the promotion of J. M. Davis to overseer of the first shift, R. G. Mellichampe as overseer of the second shift and F. J. Brown from second hand to overseer of the third shift.

William J. Layng of Bates Fabrics, Inc., has been elected president of the Atlanta (Ga.) Textile Club, succeeding Ansel B. Cook of Callaway Mills, Inc. Other officers elected include Donald W. Hawley of Wellington Sears Co., vice-president; Charlie Yates of Joshua L. Baily & Co., secretary; and Herbert I. Avery, Jr., of Celanese Corp. of America, treasurer.

F. S. Pritchard has been appointed overseer of spinning at Gaffney (S. C.) Mfg. Co. Mr. Pritchard formerly was night supervisor for the firm.

R. Curtis Jordan, Jr., has been elected to succeed the late Frank H. Naylor as first vice-president of Jordan Mills, Inc., Columbus, Ga. R. H. Rabbitt becomes second vice-president, the position previously held by Mr. Jordan, Jr. Harold E. Ruff succeeds Mr. Naylor as general buyer.

Joseph H. Bennis, president of New York & New Jersey Lubricant Co., New York City, manufacturer of Non-Fluid Oil, has announced the election of Ivan L. Hall to office of vice-president, Sidney Vollman to treasurer, James F. Donlin to assistant



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PERSONAL NEWS-

treasurer and Harry Clemens to the board of directors. All of the newly-elected officials have been associated with the firm for 40 years or longer.

'T. S. Crow is now overseer of carding in the acetate and worsted division of Spun Fibers, Inc., Whitnel, N. C. Before coming to his new post Mr. Crow was overseer of carding in the rayon division of Mooresville (N. C.) Mills.

Robert A. Harris, formerly head of the cost department at Fieldcrest Mills, Inc., Spray, N. C., has been transferred to the assistant general manager's office as staff assistant. C. W. Walker, head of the accounting methods and procedures department, has succeeded Mr. Harris as head of the cost department and has in turn been succeeded at his old position by W. C. Spaugh.

Sam R. May, Jr., has been appointed superintendent of China Grove (N. C.) Cotton Mills Co., succeeding the late E. M. Cushman. Mr. May had been assistant superintendent of the plant since Jan. 1, 1946.

Donald Comer, chairman of the board of Avondale Mills, Sylacauga, Ala., has been elected a trustee of the Council of Profit Sharing Industries. Mr. Comer was elected at the annual meeting of the council in Chicago last month.

H. Gilmer Winget, who recently retired partially as superintendent of Victory and Winget Mills of Textiles, Inc., has been elected president of Central Bonded Warehouse Co., Gastonia, N. C., succeeding the late Brown Wilson.

Paul Perkins, formerly connected with Exposition Cotton Mills Co. at Atlanta, Ga., has been named cloth room overseer at Dwight Mfg. Co., Alabama City, Ala. . . . U. S. Scruggs of Rock Hill, S. C., has been appointed assistant overseer of spooling, warping and slashing at Dwight and Robert Pharr of Thomaston, Ga., has been made assistant overseer of carding.

R. L. Stowe, prominent textile official of Belmont, N. C., recently was re-elected as chairman of the Gaston County, N. C., board of county commissioners. Mr. Stowe has been a member of the board since 1914 and chairman since 1922.

Charles A. Cannon, president of Cannon Mills Co., Kannapolis, N. C., was honored recently by the establishment of the Charles A. Cannon Award for distinguished work in historical research, preservation and restoration in North Carolina by members of the North Carolina Society for the Preservation of Antiquities. Mrs. Cannon is president of the society and established the award in honor of her husband.

John H. Warlick, superintendent of Falls Mfg. Co., Granite Falls, N. C., recently was elected vice-chairman of the Caldwell County, N. C., board of county commissioners.

Prof. Albert H. Grimshaw, veteran faculty member of the School of Textiles at N. C. State College, Raleigh, was honored at a dinner recently by the State College

chapter of Delta Kappa Phi, professional textile society. The society presented a large portrait of Professor Grimshaw to the textile school.

J. Harold Lineberger has been elected president of South Fork Mfg. Co., Belmont, N. C., to succeed his father, the late A. C. Lineberger, Sr. Henry A. Lineberger was named to the board of directors to replace his father. Ernest R. Cannon, vice-president, and D. P. Stowe, secretary-treasurer, were re-elected.

Harold Blackledge has been appointed chief dyer at the Bristol, Tenn., plant of American Thread Co. Previously he was foreman of the dye house at the firm's plant at Fall River, Mass.

Ed Lipscomb, sales promotion and public relations director of the National Cotton Council, Memphis, Tenn., has been elected a director of the Public Relations Society of America.

Will L. Clayton, who resigned as chairman of the Houston, Tex., cotton firm of Anderson, Clayton & Co. in 1940 to enter government service, has returned to the company and has been elected to his former office.

William H. Jones has resigned as vicepresident of Railway Supply & Mfg. Co., Cincinnati, Ohio, and as chairman of operations of the firm's affiliated concern, Pomona Mfg. Co., Greensboro, N. C.

W. J. Iselin, vice-president and treasurer of Woodside Cotton Mills Co., Greenville, S. C., has been appointed chairman of the textile division of the Hopewell Tuberculosis Association's Christmas seal sale.

W. A. L. Sibley, prominent textile executive of Union, S. C., has been named head of the Union District of the Boy Scouts of America for the coming year.

Albert E. Marshall has been elected a vicepresident of Heyden Chemical Corp., New York City. Mr. Marshall formerly headed the Rumford (N. J.) Chemical Works, recently acquired by Heyden.

Perley S. Wilcox of Rochester, N. Y., chairman of the boards of Tennessee Eastman Corp. and Eastman Kodak Co., was honored at a banquet recently marking his 50th anniversary with the organization.

W. T. Potter of Potter & Shackelford, Inc., Greenville, S. C., has been elected president for the coming year of the Carolinas Branch of the Associated General Contractors of America. N. K. Dickerson of Dickerson, Inc., Monroe, N. C., was elected vice-president. C. P. Street of McDevitt & Street Co., Charlotte, N. C., was re-elected treasurer and Robert Patten executive secretary.

George W. Felker, III, formerly associated with Dan River Mills, Danville, Va., has joined Southeastern Cottons, Inc., 58 Worth Street, New York City, and will devote his efforts to product development for the firm.

Frank A. Taberski, formerly chief chemist at the Imperial Paper & Color Corp., has joined the Wallerstein Co., Inc., 180

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Pioneer representative.

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HEDDLES FRAMES COTTON LOOM HARNESS

REEDS FOR ALL WEAVES

FRAME PARTS SALVAGES MAIL EYE

COMBS OF ALL DESCRIPTIONS



PERSONAL NEWS-

Madison Avenue, New York City. He will consult with bleachers, dyers, finishers and management in the textile field to promote the application of Rapidase for de-sizing.

J. Saunders Williamson of Greensboro, N. C., has been appointed Southern representative for U. S. Textile Machine Co. of Scranton, Pa., and is making his headquarters in Greensboro. Mr. Williamson was connected with Burlington Mills Corp. for eight years and was director of purchasing and an assistant vice-president at the time of his resignation Oct. 1.

Neal Callahan has joined Goodall-Sanford, Inc., as vice-president in charge of manufacturing. Mr. Callahan was associated with Hayward-Schuster for 15 years, resigning recently as general manager and executive vice-president. . . O. Reid LeClair, previously with Collins & Aikman Corp. and the Alendale Co., was appointed as assistant in a manufacturing capacity to Mr. Callahan.

Hiram S. Rivitz, who entered the service of Industrial Rayon Corp. in February, 1926, and became its president in 1927, will become chairman of the board of directors Jan. 1, 1949, when Hayden B. Kline, executive vice-president, will succeed him as president and chief executive officer. . . Frederick L. Bissinger, secretary of the firm since 1945 and head of its patent department since 1942, has been appointed vice-president in charge of research.

Dr. Richard E. Chaddock, who joined Hercules Powder Co. in 1945, has been named manager of the firm's sales and research division. He succeeds Carl W. Eurenius, who has been named director of sales of the company's cellulose products department. . . . Other personnel changes in the cellulose products department are: J. B. Wiesel, former director of sales, appointed assistant to the general manager, and A. R. Olsen, named manager of plastics promotion.

Walter Dannenbaum, who has been connected with E. I. du Pont de Nemours & Co., Inc., since 1916, has been elected a director, vice-president and member of the executive committee of the firm. He succeeds E. B. Yancey, who died Oct. 24 after a short illness. . . . Charles T. Mentzer, Jr., assistant manager of fine chemicals sales in Du Pon't organic chemicals department, has been named sales supervisor in the department's New York office and assumes his new duties Jan. 1. . . . Dr. Edward C. Kirkpatrick has been appointed assistant director of the chemical division of the ammonia department. He succeeds Dr. Robert L. Hershey, who recently became assistant general manager of the department.

See "Before Closing Down"

for more Personal News

OBITUARIES

George L. Sawyer, 67, of Summit, N. J., secretary of the National Association of Finishers of Textile Fabrics from 1928 to 1933, died Nov. 30 at a Summit hospital. He is survived by a daughter and a brother.

Thomas H. Boyd, 60, of Greenville, S. C., sales representative of the Bahan Textile Machinery Co. of Concord, N. C., died Nov. 19. Survivors are his wife, a son, a daughter and two sisters.

Alexander Rankeilor, 84, textile machinery designer and inventor and former superintendent of Saco-Lowell Shops at Biddeford, Me., died recently. Surviving are his wife and two daughters.

Albert C. Clifton, 69, of Waco, Tex., a past president of the Texas Manufacturers Association, and chairman of the board of Texas Textile Mills, Inc., Waco, died recently.

Everett M. Cushman, 72, general superintendent of China Grove (N. C.) Cotton Mills Co., died Nov. 24: During his long textile career Mr. Cushman was connected with mills in Rhode Island and Massachusetts and with Judson Mills of Greenville, S. C., and Cartex Mills, Inc., of Salisbury, N. C. Surviving are his wife, a son, a brother and two sisters.

G. R. Mathews, Sr., 82, retired textile executive of Rock Hill, S. C., died Dec. 8 after an illness of two weeks. Survivors include his wife, a daughter and two sons.



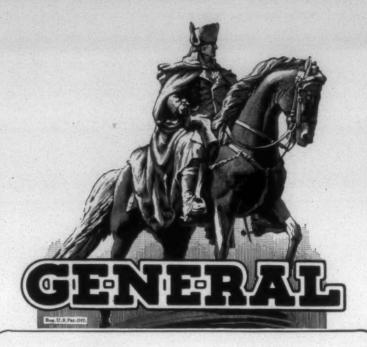
Frank D. Jacoway, 64, for approximately 15 years sales representative in Georgia and Alabama for New York & New Jersey Lubricant Co., died suddenly Dec. 9 of a heart attack at his home in Atlanta, Ga. Funeral services were

held Dec. 11. His widow and other relatives survive.

Albert R. Pierce, 79, until his retirement in 1942 superintendent and agent of the Pierce Mfg. Co., died Dec. 9 at his home in New Bedford, Mass. An inventor, Mr. Pierce received a presidential citation for originating and designing cotton airplane wing fabric to replace the linen material used for the purpose in World War I.

Frederick J. Barnes, 85, vice-president and treasurer of the New York & New Jersey Lubricant Co., New York, died Nov. 21 at his home in Bay Shore, N. Y. He joined New York & New Jersey Lubricant Co. in 1906 and was active there until his last illness.

John A. Larkin, 57, vice-chairman of the board of Celanese Corp. of America, a leader in the synthetic yarn industry for many years, died Nov. 26 at his home in New York City. A lawyer, Mr. Larkin served as counsel to the organizing body of the Celanese Corp. In 1925 he was named a vice-president of the firm and made vice-chairman of the board in 1945. Surviving are his wife, two daughters and one son.





High grade gas, by-product and steam coal from Wise County, Va., on the Interstate Railroad.



High grade gas, by-product, steam and domestic coal from Wise County, Va., on the Interstate Railroad.



High grade, high volatile steam and by-product coal from Wise County, Va., on the Interstate Railroad.



A laboratory controlled product blended to meet exacting stoker requirements. From Wise County, Va., on the Interstate Railroad.



The Premium Kentucky Splint unmatched for domestic use now under development in Harlan County on the L. & N. Railroad.

COKE

Roda and Stonega from Wise County, Va.



High grade gas, by-product, steam and domestic coal—Pittsburgh seam from Irwin Basin Westmoreland County, Pennsylvania, on the Penna. Railroad.



Genuine Pocahontas from Mc-Dowell County, W. Va., on the Norfolk & Western Railroad.



High fusion coking coal for by-product, industrial stoker and pulverizer use from Wyoming Co., W. Va., on the Vgn. Ry.



Hazard No. 4 and No. 7 steam and domestic coal from Wiscoal, Knott County, Kentucky, on the L. & N. Railroad.

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BLUEFIELD, W. VA.

BOSTON NEW YORK BUFFALO

CHARLOTTE, N. C.
PITTSBURGH

LOWLANDS, TENN.—Officials of American Enka Corp. reported a large attendance during "open house" month recently observed at the plant. Visitors were taken on guided tours during the observance.

Dallas, Tex. — Dallas Cotton Mills, owned by Horvath Mills, Inc., of New York, has been purchased by J. N. Fisher. The transaction included the building only, the machinery having been disposed of some time ago.

HABERSHAM, GA. — Habersham Mills Foundation has donated \$2,500 to the building fund for Piedmont College, Demorest, Ga. The gift was made by Aubrey Motz, Jr., secretary and treasurer of the mill, and a trustee of the college.

DURHAM, N. C.—The No. 1 Mill of Erwin Cotton Mills Co. has replaced much of its old opening equipment with new and modern machines.

KNOXVILLE, TENN. — Cash dividends amounting to \$250,480, or slightly less than five per cent, were paid by Cherokee Textile Mills for a nine-month period ended Sept. 30. Plant and machinery improvements made in 1947 and 1948, plus those now in process, will come to one million dollars. The plant currently is operating on an overtime basis

NEW YORK, N. Y.—Directors of Textron, Inc., Nov. 30 declared a quarterly dividend of 31½ cents a share on the \$1.25 convertible preferred stock of the corporation payable on Jan. 1, 1949, to stockholders of record as of the close of business on Dec. 13, 1948, and also declared a quarterly dividend of 25 cents a share on the common stock of the corporation payable on Jan. 15, 1949, to stockholders of record as of the close of business on Dec. 13, 1948.

MONTICELLO, ARK.—A \$100,000 addition to the plant of Charm Tred Mills, cotton rug manufacturer, is under construction and will be completed in December, 1949. Rearrangement of the present shipping department will release space for installation of a Latex processing plant to make safety rugs as an auxiliary of the cotton rugs line.

NEW YORK, N. Y .- The directors of American Viscose Corp. Dec. 1 declared an extra dividend of \$1.50 a share on the common stock and a dividend for the first quarter of 1949 of 75 cents. This is the second extra dividend declared by the corporation since it became publicly owned in 1941 and the first time a quarterly dividend has been declared since that time in excess of 50 cents. The first extra dividend was declared Dec. 3, 1947, and amounted to one dollar. The extra dividend declared Dec. 1 is payable Dec. 21, 1948, to holders of record at the close of business on Dec. 11, 1948. The quarterly dividend on the common stock and the regular quarterly dividend of \$1.25 a share on the five per cent cumulative preferred stock were declared payable Feb. 1, 1949, to holders of record at the close of business on Jan. 17, 1949. Under the procedure it generally has followed in the past, the board would have declared the regular dividends at its meeting the first week in January. For the first nine months this year the corporation earned \$24,132,822, equivalent, after preferred dividend requirements, to \$11.36 a common share. These earnings compare with \$14,549,382 for the first nine months of 1947, which were equivalent, after preferred dividend requirements, to \$6.67 a common share.

SCOTTSVILLE, VA.—The Scottsville plant of United States Rubber Co. was presented with the National Safety Council Distinguished Service to Safety Award Dec. 2 for having operated more than one million manhours without a lost-time accident. Employees of the rayon tire cord plant have vorked since Sept. 11, 1946, without a losttime accident. To date more than 1,400,000 man hours have been accumulated in the current safety record. Presentation of the award was made by Raymond Ketchmark, former staff representative of the National Safety Council and now safety director of Dan River Mills, at a ceremony attended by plant employees. The award was accepted by Steven A. Ward, assistant to Plant Manager Donald Carroll, who was unable to attend because of illness, W. E. Clark, assistant general manager of U.S. Rubber's textile division, was the principal speaker. Hugh Flynn, office manager, was master of ceremonies.

MACON, GA.-Dissenting stockholders in Callaway Mills, Inc., LaGrange, Ga., were awarded about \$250,000 and the formal plan for reorganization of the corporation was approved in a decision handed down recently by Judge Mallary C. Atkinson in Bibb Superior Court. Under the terms of a consent decree signed by Judge Atkinson, the stockholders, representing about three per cent of the stock in the concern, will divide the money held in escrow after the disposition of the large holdings of cotton of the concern. The decision closes a case which has been in court for the past year. Callaway Mills, now in the hands of representatives of Callaway Foundation, had continued to operate on a normal basis during the period of litigation.

NEW YORK, N. Y.—Textron, Inc., recently confirmed that it has arranged to sell all of the common stock of the Esmond Mills, Ltd., a Canadian corporation, to interests close to Beacon Mfg. Co. of Swannanoa, N. C. The Canadian company operates blanket mills in Granby, Que., and Perth, Ont. The stock of the Canadian company was acquired by Textron, Inc., earlier this year in connection with its purchase of the assets of Esmond Mills, Inc.

WAYNESBORO, VA. — The Waynesboro plant of Textron, Inc., producer of Bunny Esmond crib blankets, has been acquired by Chatham Mfg. Co. of Elkin, N. C. The mill will operate under Chatham management, but will continue to manufacture the Esmond blanket, which will be sold through

the Chatham sales organization to customers previously served as well as to other sources. M. A. Simmons, manager of the Esmond plant for several years, will continue in that capacity.

CO

LAURENS. S. C.—The water, light and sewerage system in the residential section of Watts Mills village has been purchased by the city of Laurens. Watts Mills is a subsidiary of J. P. Stevens & Co., Inc.

GREENVILLE, S. C.—A motion by Union Bleachery to reopen a tax case that has been in the courts for the past 15 years was denied Dec. 8. The company claims that the government owes the firm \$204,538 in allegedly overpaid taxes, dating back to the 1920s. The court gave the mill a judgment for \$1,732.95 last July and dismissed the claim.

WINNSBORO, S. C.—U. S. Rubber Co. currently is installing 65 Draper high-speed looms at its plant here to be used in experimental weaving of rayon suitings and cotton ginghams. The plant produces cotton tire cord and operations will continue during the installation of the new equipment.

GLENDALE, S. C.—As part of a program of general improvements to the mill and village, Glendale Mills is erecting a full-size gymnasium, with space for spectators, and shower and dressing rooms for both men and women. The mill itself is being modernized with fluorescent lights and over-all repairs.

NEW YORK, N. Y.—Harold Blanke, president of the Celanese Corp. of America, predicted Nov. 18 that sales of his company for 1948 would reach a record of \$230,000,000. This would be an increase of about \$50,000,000 over the sales figure for last year.

Brewton, Ala.—Installation of a new dyeing and blocking operation has been completed at the Stephens Spinners plant and will be put into use upon completion of a new sewer system. The dyeing installation includes vats, drying rooms and blocking tables for handling yarns. The plant produces yarn for the Bonita Ribbons Mill and the Brewton Weaving Co.

CHILDERSBURG, ALA. — The new rayon plant of Beaunit Mills under construction here is expected to begin partial operations in January. The plant will employ about 400 persons by next August in the production of rayon thread from pulp good.

BALTIMORE, MD.—Mount Vernon-Woodberry Mills, Inc., long a major factor in the cotton duck and canvas markets, is becoming a heavy producer of synthetic fabrics. With one mill conversion project completed and two more well underway, there currently is about 20,000 spindles in operation in the three plants and 10,000 new spindles will be added within a few months. Employment will be increased 40 to 50 per cent as production rises, it is reported, and the Baltimore operations will account for about 20

COTTON . RAYON . WOOL . SILK . NYLON



Plans and designs for all types of projects related to the textile industry. Appraisals, modernization studies, machinery layouts, air-conditioning, power and water filtration plants, and other phases of textile engineering.

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ATLANTA

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Fade-Ometers, Launder-Ometers
Weather-Ometers ' Swing Guiders, Expanders, Weft
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For Roving, Filling, Doffing, Lap, Platform, Battery Filling, and Every Mill Need. Fisher Vulcanized Fibre Trucks are so designed as to avoid damage to machinery on contact. Reinforced at exactly the right places, inside and out.

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HARTWELL, GEORGIA



have such fixed habits

Every so often they give spinning frames (spoolers, warpers, winders, too) a mild fanning. Lint is shooed away before it has a chance to bunch.

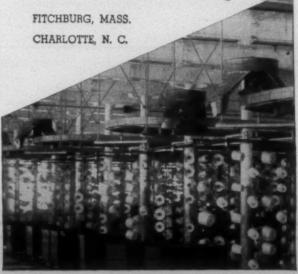
Improves Quality Improves Quantity

Cleaner Yarn Fewer Ends Down Smoother Yarn Fewer Stops Fewer Piecings Fewer Pickouts Fewer Seconds Fewer Cutouts

Lessens waste; waste of material, waste of time. Better working conditions. More is accomplished with less effort.

Not a bad investment.

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REMILLS LOOK TO NORTH

SLASHING WEAVE-WELL PRODUCTS

SHUTTLE GREASE-RITE TALLOW

FINISHING FINISH-RITE PRODUCTS

Northol P. C. for use with any make of machine, for setting twist conditioning yarns

PRODUCTS of unsurpassed quality and performance, plus an experienced knowledge that knows how to recommend their use for practical results-is convincing more mills, day by day, that NORTH is the place to turn for service and supply when changing conditions require new and highly specialized products to meet the problem at hand. Our men are trained in practice; not in theory. Our products pass the same exacting test.

Among the nation's largest manufacturers of dressings for all warp yarns compared with the five per cent in the past. The firm's plants in Alabama and South Carolina will continue to operate with cotton exclusively, the company emphasized. CLEVELAND, OHIO - Hiram S. Rivitz,

per cent of the company's total production,

president of Industrial Rayon Corp., reported to directors at a recent special meeting that negotiations have been concluded for the purchase of a 1,200-acre plant site on the Ohio River at Point Pleasant, W. Va., where a new continuous process plant will ultimately be erected. The company intends to concentrate its expansion program on the further development of this process, which is now in use at its Painesville and Cleveland plants. Any new plant will reflect the refinements and improvements resulting from ten years of commercial experience with the process, plus the results of research which is still continuing. This site includes land which was formerly part of the West Virginia Ordnance Works, and it was assembled by the Tri-County Industrial Foundation, a non-profit corporation organized to promote the industrial development of the Ohio Valley in the vicinity of Mason County, W. Va., and Meigs and Gallia Counties in the State of Ohio.

ROME, GA.—The strike which began Aug. 14 at the Celanese Corp. of America's rayon plant here was settled Dec. 8 when union leaders and company officials signed a new working agreement. The new contract was signed after an all-day conference between George Baldanzi, national executive vicepresident of the Textile Workers Union of America (C. I. O.), W. Y. Brown, the company's personnel director, and other which lasted 116 days, had thrown about 1,800 workers off the job. About 600 workers-supervisors, clerks and other salaried employees-remained on the job.

ANNISTON, ALA. -- Plans of Columbia Weaving Mills, Inc., for establishing a plant in Anniston, for the production of Venetian blinds, have been abandoned. An official of the firm said the availability of a building in Paterson, N. J., home of the mills, made it advantageous for the firm to remain there.

UNION, S. C. - A modernization program, which will include improved working conditions and new machinery installations, is currently underway at the Ottaray Plant of Monarch Mills. Much new equipment already has been installed in the card room and spinning department and 81 X-D looms, expected to be installed about the first of the year, will replace the last of the old model looms now in use. The plant is being air conditioned and the fluorescent lighting system is being revamped. Estimated cost of the project is \$360,000.

BLACKSTONE, VA. - Denville Fabrics Corp., a New York corporation with principal office in Virginia at Blackstone, Paul H. Shapiro agent, has been granted a certificate of authority to start a textile manufacturing business. Maximum capital is 2,000 shares without par value.

SPRAY, N. C .- Fieldcrest Mills have an-



MANUFA CTURING CHEMISTS

ATLANTA, GEORGIA · P.O. Box 123, Sta. A · Phone Raymond 2196 MARIETTA, GEORGIA · P.O. Box 92 · Phone Marietta 250 nounced plans to spend about \$1,000,000 in 1949 on modernization and improvements at the company's eight plants in Leaksville, Spray and Draper, N. C., and at Fieldale, Va.

LUMBERTON, N. C.—M. S. Dayan of New York, a former owner, purchased Global Mills, Inc., for \$400,000 at public auction Dec. 6. The mills have not been in operation for several months.

COLUMBUS, N. C.—Bids were received Dec. 13 for construction of a mill building here for Columbus Mills, a subsidiary of Alkahn Silk Label Co. of New York City. Harold Woodward of Spartanburg, S. C., is the architect for the project.

LAVONIA, GA.—Construction of the new million dollar woolen mill here for the Albert J. Bartson Co., Inc., of New Jersey, delayed by weather and lack of steel, is progressing steadily and completion of the project is now set for April, 1949. The building will be 90 to 400 feet, containing 36,000 square feet.

ALEXANDER CITY, ALA.—The new office building of Russell Mfg. Co. is now completed and occupied by the various departments of the company. In addition to the offices, the building also houses a chemical and textile laboratory, plus storage vaults.

CLINTON, S. C.—First prize in the annual Christmas parade here was won by the float of Lydia Cotton Mills, depicting cloth being woven from raw material into the finished product.'

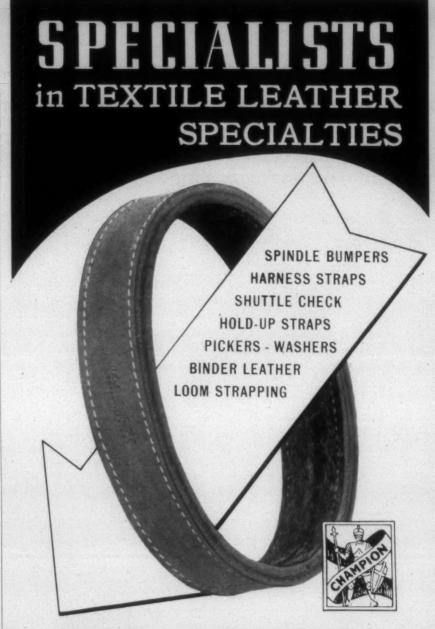
DANVILLE, VA.—The board of directors of Dan River Mills recently announced a donation of \$500,000 to Danville's \$2,500,000 hospital expansion fund. The action is subject to ratification by the shareholders at the annual meeting to be held next Spring. This gift is independent of the \$200,000 which the 12,000 employees of the firm have volunteered to contribute to the fund on a pay deduction basis.

CLARKSVILLE, VA.—Colonial Mills, Inc., recently made known plans to expand the dyeing and finishing of spun rayons at its Clarksville Finishing Division by construction of a 32,000 square foot addition. The new space will be used for warehousing, but will release a similar area for installation of new dyeing and finishing equipment. C. M. Guest & Sons of Anderson, S. C. builders of the original plant, will build the addition. Biberstein & Bowles of Charlotte, N. C., are engineers.

JAMESTOWN, N. C. — Jamestown Mills. Inc., has purchased from Burlington Mills Corp. the plush weaving plant and equipment of Statesville (N. C.) Cotton Mills, Inc., and the company has already begun production in a temporary location at Jamestown.

ELKIN, N. C.—Chatham Mfg. Co. has been awarded the National Safety Council's Distinguished Service to Safety Award for

> For additional Mill News, see "Before Closing Down"



"None finer"... is the way hundreds of customers describe our Circular Check Straps of "Champion" Leather. Endless strapping is but one of the many leather specialties that bear the famous "Champion" trademark - your assurance of top quality materials and workmanship.

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GREENVILLE, S. C.

MAYWOOD, N. J.

the third consecutive year. Forstmann Woolen Mill of New Jersey is the only other textile mill in the United States to receive the award three times. The accident frequency rate for Chatham is 1.25, while the latest rate in the textile industry as a whole is 8.33.

CAROLEEN, N. C.—Worn out machinery and equipment at Henrietta Mills is to be replaced at a cost of \$2,336,000. G. E. Huggins, president, announced that contracts for the machinery and equipment for this purpose have been executed and are

outstanding for the machinery to be delivered in both North and South Carolina as soon as the production schedules of machinery manufacturers permit. The firm operates a plant at Cherokee Falls, S. C., also.

GASTONIA, N. C. — A nearly-completed addition at Bloom Mills, Inc., will add 20,000 square feet to the plant, to be used in the production of fine novelty cloths and yarn-dyed fabrics. The expansion will include the installation of about 200 additional looms, bringing the total to approximately 350.

STATESVILLE, N. C.—Seminole Mills has

received a building permit for construction of a \$54,000 slasher plant. The two-story brick structure will be 84 by 112 feet. Seminole bought the Statesville plant of Burlington Mills Corp. last Summer and the proposed addition is an expansion of the original facilities.

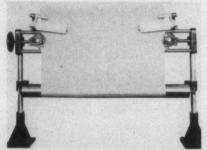
PINE BLUFF, ARK.—The General Waterworks Corp. of Pine Bluff announced recently that it will spend over \$15,000 in extending water facilities to the proposed Pinecrest Mills, Inc., plant here. Officials report that fire protection and water requirements are the last major obstacles to be overcome before contract for construction is let.

For The Textile Industry's Use

EQUIPMENT - SUPPLIES - LITERATURE

Improved Cloth Guider Offered By Mount Hope

A new high in the preciseness of cloth guiding in the finishing plant is claimed by Mount Hope Machinery Co. of Taunton, Mass., with the perfection of its new precision automatic guider. This device, it is claimed, makes it possible to automatically control the lateral movement of cloth within closer limits than ever before possible. An entirely new principle in cloth guiding in the form of a fluted selvage wheel, which is contacted and turned by the selvage, is responsible for this ultimate in precision cloth



guiding. The wheel actuates a rack which, in turn, actuates the tilting of nip rolls to guide the cloth toward or away from themselves as required. Even the most delicate goods react instantly and safely to this guiding, it is claimed. The Mount Hope guider is entirely mechanical, having no coils nor air valves. Reports indicate it is extremely adaptable as well as rust and waterproof. Rolls are long-wearing, reversible neoprene. A descriptive bulletin No. SG-PG is offered on request by the manufacturers.

Surface Active Agent Offered By Hart Corp.

A concentrated alkylated aromatic sulfonate, said to show nearly twice the wettingout action possessed by the conventional alkylated aromatic sulfonates, is being marketed as Hartofol C by the Hart Products

Corp., 1440 Broadway, New York City. Hartofol C, a liquid gel, is stable to both organic and mineral acids as well as all alkalies. It can satisfactorily be used in water of any hardness and in the presence of salts, soaps, emulsions, and the like. From an economy viewpoint, Hartofol C is claimed to be one of the fastest wetting agents on the market. In addition to its wetting action, it shows good detergency (particularly in the presence of alkalies and phosphates) and good sudsing action. Hartofol C is used wherever its superior wetting-out, rewetting and scouring action are required. It is recommended for vat or pad dyeing, for package dyeing and dyeing operations in general to give greater uniformity of shade. Added to printing pastes it improves penetration and gives better fastness to soaping, the company claims. Hartofol C finds application in such textile processing as raw wool scouring; wool carbonizing; wool piece goods dyeing; rayon, acetate and cotton boil off; rayon and acetate dyeing as a wetting-out agent; and print washing and

New Model Cartridge Demineralizer Offered

A re-designed Filt-R-Stil cartridge demineralizer for delivering the low-cost chemical equivalent of distilled water, without heat and at a maximum rate of ten gallons per hour has just been announced by the Ion exchange products department of American Cyanamid Co. The new unit, like previous models, consists of three principal parts: a disposable cartridge containing Cyanamid's Ionac ion-exchange resins, which are synthetic chemicals capable of removing dissolved, ionized solids without imparting a thing to the water being treated; a bracket or support for the cartridge; and an electrical conductivity indicator, which shows the quality of all treated water and indicates when the cartridge is exhausted and needs replacement. In previous models, the supporting bracket was designed for table-top use; the new wall model is lighter,

simpler in design, and more compact. In addition, the conductivity indicator has been improved: it now shows the quality of treated water continuously; previously, it had been necessary to depress a button and



check the conductivity at various intervals during usage. The unit requires only two watts of electricity

To install, the unit need only be fastened to a wall and the inlet tubing attached to a cold-water faucet. When the water is turned on, it flows through the cartridge and emerges essentially mineral-free. The water delivered by the cartridge unit is guaranteed to contain no more than ten parts of dissolved ionized solids per million parts of water, exclusive of silica. The quantity of water treated per cartridge depends on the quality of the raw water available. The rated capacity of the cartridges used is 1,100 grains (as CaCO3). Thus, one cartridge will produce at least 550 gallons of demineralized water from a two-grain per gallon supply; 220 gallons from a five-grain per gallon supply, etc. The unit can be operated either continuously or intermittently, and delivers demineralized water in a matter of seconds after the tap is turned on.

In addition to use in laboratories of all

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When you have your Spindles, Pressers, Flyers, Steel Rolls & Picker Aprons reconditioned by

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A BIG MODERN PLANT PLUS 75 YEARS of EXPERIENCE

It means that you can speed your production by making use of all the knowledge we have gained on needle-pointed specialties for the preparation of wool and other fibers. In all the field—no plant like this—no such rich fund of experience—no such quality. Your inquiries will receive prompt attention.

WILLIAM CRABB & CO., 303 3rd Ave., Newark, N. J.

KENTEX APRONS



The popularity of Kentex Aprons is primarily due to the fact that they offered the spinning-room overseer a more uniform apron—so absolutely precise in all measurements that he was assured a sure fit... No expense nor painstaking effort is spared by us to maintain this reputation Kentex Aprons enjoy for greater uniformity.

If you haven't used Kentex Aprons yet, you can try them without cost, and see for yourself, on your own frames, just what they will do. Send us your specifi-

cations and we'll be glad to send you free samples and quote you prices.



TEXTILE APRON COMPANY

EAST POINT, GEORGIA

J. B. KENNINGTON, OWNER

FOR THE TEXTILE INDUSTRY'S USE-

types, the Filt-R-Stil cartridge demineralizer is used by all establishments using, servicing, or distributing batteries. The price of the Filt-R-Stil cartridge demineralizer is \$59.50. Further details are available from American Cyanamid Co., Ion Exchange Products Department, 30 Rockefeller Plaza, New York 20, N. Y.

New Wetting Agent Offered By Monsanto

A new low-cost liquid wetting agent and detergent of the alkyl aryl sulfonate type was announced Nov. 30 by Monsanto Chem-

ical Co. A pale lemon viscous fluid, it is sold under the Monsanto trademark Santomerse 30-X. The product is especially designed to give quick and effective wetting at low unit cost, and will be of particular interest to the textile industry, according to W. R. Corey, assistant sales manager of the company's phosphate division. 'The low price was achieved by process improvement," Corey said in making the announce-ment. "The product is a clear, extremely light colored solution, containing 30 per cent solids. The solids content is made of approximately 85 per cent active alkyl aryl sulfonate and 15 per cent sodium sulfate. It has remarkable resistance to decomposition by either strong acids or alkalies, even under extreme conditions." Santomerse 30-X liquid wetting agent is recommended for wet processing of textiles and many other applications where surface tension reduction and quick wetting is desired, Its attractive color, viscosity and high detergent value also make it will suited for liquid cleaners, Corey said.

Manhattan Rubber Div. Completes 55th Year

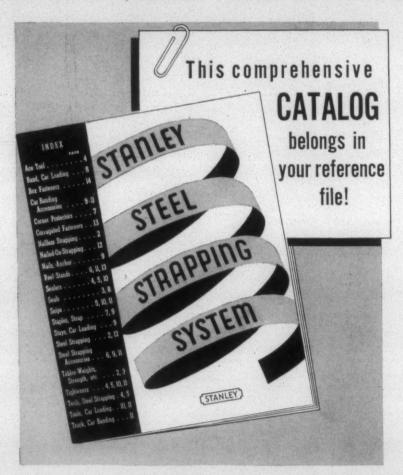
On Oct. 28 the Manhattan Rubber Division of Raybestos-Manhattan, Inc., Passaic, N. J., completed its 55th year. Manhattan traces its ancestry to the dawn of the rubber industry, to the first chartered rubber company in America, the Roxbury Rubber Co. of Boston. It was organized in 1833, six years before Goodyear used sulphur to vulcanize rubber, and in 1845 the Roxbury Co. was reorganized by Henry Fowle Durant, founder of Wellesley College, and John Haven Cheever, who became joint owners of the Boston Belting Co. and another rubber company. Durant placed his two cousins in the company. One was Frank Cazenove Jones, the other, Col. Arthur Farragut Townsend, godson of Admiral Farragut. In 1893, Mr. Jones, Colonel Townsend and George Woffenden, then considered top-ranking rubber expert, founded The Manhattan Rubber Mfg. Co. with a newly-built plant at Passaic. Mr. Jones became first president but retired in 1903 in favor of Colonel Townsend, who served as president until 1929 when the company merged to form Raybestos-Manhattan, Inc.

Today Manhattan Rubber Division is one of the largest manufacturers of mechanical rubber goods, including conveyor and transmisson belting, V-belts, hose, molded goods, packing, rubber rolls, rubber lined tanks; also brake lining, abrasive wheels, and bowling balls. About 4,000 persons are now employed at the plant that covers more than a million square feet of floor space. Raybestos-Manhattan, Inc., has other time-honored divisions: the Raybestos Division at Stratford, Conn., the country's largest friction material plant and first producer of asbestos brake lining, now nearing its half century; United States Asbestos Division, Manheim, Pa., also nearing its half century and one of the largest manufacturers of asbestos products, packing, and friction material; General Asbestos & Rubber Division, North Charleston, S. C., now in its 53rd year and largest asbestos spinning plant. Sumner Simpson is chairman of Raybestos-Manhattan, Inc., and John F. D. Rohrbach is president.

president.

Twitchell Packaging Div. Moves To Larger Quarters

The packaging division of E. W. Twitchell, Inc., designers and suppliers of packagings for industry, has been moved from the Public Ledger Building, Philadelphia, Pa., to larger and more modern quarters at 2801 North Third Street, Philadelphia. The move, which took place about Dec. 18, enables the packaging division to provide still better service to its many good customers. The enlarged and improved facilities, at the new location, include warehouse space, a railroad siding, several truck docks, freight elevators, and modern offices. Although the



Here in a handy, 14-page, lettersize booklet are the quick facts and figures on steel strapping. Tables of tempers and finishes, of pounds per thousand feet, of feet per pound, of strength of strapping and seals, number of seals per 100 lbs. and weight per 1000 seals. Large, clear photographs and drawings with dimensions. Short, factual descriptions of various types, sizes and finishes of strapping, seals, tools and accessories . . . and related products such as corrugated fasteners and box fasteners.

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office location has been changed, the packaging division personnel will remain unchanged. Norman T. Gates will still handle the sale of Seetag Products to the set-up box manufacturer; William F. Baker, Jr., will head-up Beauty-Pak hosiery and textile packagings sales; and Walter D. Russell will service the Paksure food packagings.

General Dyestuff Corp. Releases New Circulars

General Dyestuff Corp., 435 Hudson Street, New York City, recently released the following new circulars for the industry's use: G-552—Fast Orange Salt GCS; G-555—Supramine Yellow 3GLA—CF; G-556—Rapid Fast Red RH Powder; G-557—Acid Anthracene Red GA Extra Conc. CF; G-558—Diamond Blue Black EBS Extra CF; and G-565—Katigen Cutch Brown RN Conc. CF.

Dixie Textile Machine Co. Organized In Greensboro

Dixie Textile Machine Co. was organized recently in Greensboro, N. C., to manufacture dies and metal stampings. Incorporators are: A. A. (Red) Brame, president; Frank A. Wilkens, vice-president; James W. Scott, secretary; and Harvey Heath. Mr. Brame for the past five years was on the Southern sales staff of Walker Mfg. Co. of Philadelphia and is well known in Carolina textile circles. Mr. Wilkens has had wide engineering experience with such companies as SKF in Sweden, of which country he is a native; Barber-Colman Co. of Rockford, Ill., and more recently with Edwards Machine Co. of Sanford, N. C. During the war, Mr. Scott served as a civilian with the Navy Department where he worked on precision instruments. Mr. Heath was formerly with Edwards Machine Co. The modern shop, which is located temporarily on East Bessemer Avenue, is equipped to do heat treating in addition to die making and metal stamping. Mr. Brame states that while they will specialize on textile mill jobs, they are in position to serve other industries as well. The shop is now in full operation.

Wilkins & Matthews Named Agents For Belting Firm

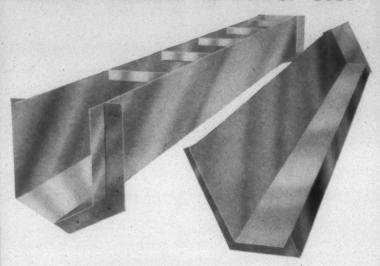
Wilkins & Matthews of Charlotte, N. C., agents for several well known textile mill equipment lines, have been appointed Southern representatives of the Philadelphia Belting Co., manufacturer of leather pickers and other mill supplies. Wilkins & Matthews recently moved from its former location on Worthington Avenue to larger quarters in the Builders Building in Charlotte.

Landis Named Agent For Silver King Roving Cans

Oliver D. Landis, Inc., 718 Queens Road, Charlotte, N. C., has been appointed exclusive sales agent in Virginia and North Carolina for the Silver King Roving Can, a product of Silver King Fibre Corp., Westport, Mass. Silver King roving cans are made of vulcanized fibre and some of the outstanding physical properties of vulcanized fibre are listed as follows: light in

Stainless Steel Means

Better Service at Lower Cost



Stainless Steel Water Treatment Trough

HECK THROUGH your plant today. There's a tank, vat, or a part that must be replaced with monotonous regularity. When such a situation arises, you'll find that Stainless will do the job better . . . for longer periods . . . at less cost. This is particularly true in regard to wet textiles, extremely sensitive solutions or acids, dyestuffs, chemicals, water and steam. Savings on lower upkeep, fewer repairs and rejections alone will soon pay for initial costs.

Truitt's engineering service in the fabrication of carbon and stainless steel is available to the textile, chemical, pulp and other industries. Should your need be tanks, vats, or other equipment, remember . . . Truitt, one of the South's larger fabricators, will gladly figure your job without cost or obligation.

MANUFACTURING COMPANY • GREENSBORD, NORTH CAROLINA •

Fabricators of Solid Stainless Steel and Stainless-Clad Tanks • Dyeing Vats • Washing Tanks • Steam Drums • Storage Tanks for Acids and Alkalis • Mechanical Agitators • Separators • Stainless Steel Trucks • And Many Other Stainless Steel Products.



THEY LEAD A "FAST" LIFE

A mile a minute! That's how fast a traveler goes as it speeds around your spinning ring. This fast life, with the wear and tear that goes with it, doesn't bother Dary Ring Travelers. The exclusive Dary Process gives them that hard, smooth durability that means longer traveler life.

This special Dary Process also guarantees weight, temper, and stock of each traveler to give you better all-round service. Dary Travelers not only last longer, but also permit the use of higher spindle speeds.

Get further details from your nearest Dary representative. He'll give you plain facts about the outstanding features of Dary Ring Travelers.



The DARY RING TRAVELER CO.

TAUNTON, MASSACHUSETTS

JOHN E. HUMPHRIES, BOX 843, GREENVILLE, S. C.
JOHN H. O'NEIL, BOX 720, ATLANTA, GA.
JAMES M. CARVER, R. F. D. 2, SHELBY, N. C.



FOR THE TEXTILE INDUSTRY'S USE-

weight; high tensile, flexual, compressive, shear and impact strengths; can absorb sudden repeated shocks and impacts; is available in various degrees of hardness from soft as wet rawhide to hard as bone; has ability to spring back when subjected to sudden shocks; has stubborn resistance to wear and abrasion; and will not absorb oils, gasoline or most solvents.

National Starch Method Cuts Processing Time

The Indianapolis, Ind., plant of National Starch Products, Inc., is reported to be the first plant in the corn wet milling industry separating starch on a 100 per cent basis mechanically by means of a battery of high speed centrifugals-known as Merco Separators. These large machines built of stainless steel, totally enclosed, replace the old-fashioned "tables" customarily used. These tables consist of rows and rows of long open troughs literally covering acres of space. The starch is allowed to settle on these tables for a period of eight hours or more and then flushed off with a high pressure stream of dilute starch. Naturally contamination from dust laden air is almost impossible to avoid. In conjunction with this modern equipment, National dries the separated starch in continuous fully automatic driers made by Proctor & Schwartz. These driers, each over 120 feet long, carry

SPARTANBURG, S. C.

the starch on a perforated stainless steel belt while a blast of filtered hot air dries the starch in a matter of minutes. This quick drying tends to retard spore and bacterial growth. The practical result of these innovations is that processing time has been reduced from approximately 24 hours to less than three hours. This outstanding achievement is so radically reducing processing time, and carrying out these operations in totally enclosed, stainless sanitary equipment cannot help but make for cleaner, purer starch which is so appreciated by industrial users of starch such as textile mills, the company states.

Price Of Syton W-20 Reduced By Monsanto

A net reduction of 25 per cent in price of Syton W-20, a new chemical aid to textile spinning, was announced Dec. 1 by Monsanto Chemical Co. The new price of 15 cents per pound, effective immediately, includes royalties under U. S. Patent 2, 443,512 which was issued to Monsanto recently and which covers the use of silica sols in spinning any textile fiber. For firms which prefer to pay such royalties separately, the company will provide formal license agreements. Greatly increased volume, because of rapid acceptance by woolen and worsted spinners, has made possible the reduction from the former price of 20 cents, the company said.

Described as a "colloidal dispersion of submicroscopic silica" Syton W-20 was de-



PHONE 4669

veloped in the laboratories of Monsanto's Merrimac Division at Everett, Mass. Applied to the stock, Syton W-20 controls the rate at which individual fibers slide past one another during spinning operations and hence increases the strength of the yarn, in some cases up to 30 per cent. Stronger yarn permits spinners to reduce the twist, and thereby to increase production and improve "loft." Increased strength also means fewer ends down in spinning and on the looms. Spinners report that they can obtain finer and more uniform yarns, closer to limit spins, and less fly when the stock is treated with Syton W-20.

Dixon Saddle Co. Names Southern Sales Agents

Dixon Lubricating Saddle Co. of Bristol, R. I., announces that J. W. Davis, manufacturers' agent, and R. E. Holt, Jr., and Associates, have been appointed exclusive sales representatives in the South. J. W. Davis, P. O. Box 745, 122 Dillingham Street, Columbus, Ga., will represent Dixon in Alabama, Georgia, Louisiana, Mississippi and Tennessee. Mr. Davis has been a manufacturers' agent for over ten years, and prior to that time, spent many years in spinning and carding rooms. R. E. Holt, Jr., and Associates, P. O. Box 1474, Jefferson Building, Greensboro, N. C., will represent Dixon in the Carolinas and Virginia. Mr. Holt has been representing concerns as sales agent for five years. Before he established his own office in 1943, he was employed as purchasing agent for Burlington Mills Corp. for 11 years. These agencies will handle all of Dixon's products. The company announces that these appointments were necessitated by the tremendous interest shown in the new Slixonice saddles and cap bars, and by the desire to give the best possible service to the textile industry. Either of the above representatives will be pleased to discuss any saddle assembly or cap bar problem with textile industry officials. The company's home office in Bristol, R. I., continues to stand ready to assist mill men at any time.

Chain Belt Co. Opens Warehouse In Atlanta

Chain Belt Co. of Milwaukee, Wis., announces the establishment of a new Atlanta, Ga., warehouse at 878 Ashby Street, N.W. The Atlanta district office will also be located at this address under the direction of J. S. Moore, district manager. The new warehouse will be under the supervision of J. Schuelke, formerly of the Milwaukee office. The new Atlanta warehouse will serve the entire Southeast including the states of North Carolina, South Carolina, Virginia, Georgia, Florida and Alabama. A 24-hour delivery service will be available to most parts of the territory served. This warehouse will be used to give better service to Chain Belt Co. customers and to aid Rex and Baldwin-Rex distributors in serving their customers faster and with a more complete,

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We design Group Insurance Plans for Southern organizations . . . with benefits to cover loss of life and sickness for employees; and surgery, hospitalization, and maternity for both employees and their dependents

J. F. FREEMAN, Vice President GROUP DIVISION

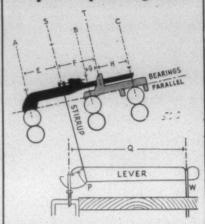
COMPLETE COVERAGE

INSURANCE COMPANY

O. F. STAFFORD, President

Home Office: GREENSBORO, N. C.

How to Check Weights on your Spinning Rolls



Pressures on Front, Middle and Back Rolls as shown above

E. F. G. Distances shown measured in inches.

The perpendicular distance from stirrup to contact point at top of lever screw. When measuring, be sure rule is held so angle with stirrup is 90°

The distance from contact point at top of lever screw to weight hook

screw to weight hook

— The point of contact between saddles, as well
as the pressure on the Back Saddle.

5 — The point of contact between stirrup and Front
Saddle, as well as the pressure on the Front
Soddle.

The weight on the lever in pounds.

Formulae for Figuring Weight on Rolls:

For Pressure on Front Saddle: (W)(Q) = S(P)Solve for S For Pressure on Back Roll:
(T)(G) = C(G+H) Solve for C

DIXON suggests a careful Check of Weighting on all Rolls

The above weight ratio formulae are designed to help you to a more complete and visual understanding of the many fac-tors affecting good weighting and the proper functions of an ideal saddle assem-bly. Knowledge of the hows of correct weighting and the application of this knowledge in practice may prevent many a drafting headache

Cut out this diagram and formulae and keep for your future reference or we will send you reprints on request. If you encounter weighting problems which these formulae do not solve, send them to us for solution.

DIXON LUBRICATING SADDLE CO.

Established 1876 BRISTOL, RHODE ISLAND, U. S. A

Sole Manufacturers of UBRICATING SADDLES



- of high-priced time
- of production
- due to damaged materials
- · due to injury of personnel

These are the costs of outdated equipment.

Modernize Your Elevators NOW

Elevator costs have increased moderately. You can speed up your elevator; increase its carrying capacity; improve its safety; install motorized hatchways and doors, push button controls, self-levelling and other automatic devices, and profit from your investment.

Free Consultation and Inspection

Let us survey your elevator needs and make our recommendations. This service is



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- Oil Hydraulic Elevators
- Residence Elevators
- Dumbwaiters
- · Parts, Repairs and Maintenance for All Makes

MONARCH ELEVATOR & MACHINE CO.

Greensboro, N.C. Department C

The Largest Firm in the Southeast Devoted **Exclusively to Elevator Manufacturing**

FOR THE TEXTILE INDUSTRY'S USE-

readily available, line of Chain Belt Co. products. The merchandise products of the chain and transmission division, Baldwin-Duckworth division and the conveyor and process equipment division will be stocked. These products include Rex and Baldwin-Rex power transmission and conveyor chains, chain vises, sprockets, felt idlers and allied power transmission and conveyor equipment.

The Baldwin-Duckworth Division, 369 Plainfield Street, Springfield, Mass., announces that Selma (Ala.) Foundry & Machine Co. is now a distributor of Baldwin-Rex merchandise products. Selma Foundry & Machine Co. has been for a long time, and will continue to be, a distributor of Rex chain and power transmission machin-

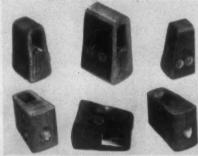
Intercom Circuit For High Noise Level Areas

A new intercom circuit which makes it possible to answer paged messages from high noise level areas clearly and intelligibly, has been introduced by Executone, Inc. This new circuit combines the co-ordinated operation of a trumpet-type paging reproducer and two-way staff station for use in either intercommunication or sound systems. Heretofore, when replies were made through a two-way trumpet reproducer in a noisy location, the trumpet would pick up and transmit to the calling station all the shop noises so that the reply message was frequently unintelligible and created a disturbing blast at the station where the call



originated. With this new circuit, a long standing acoustic problem has been solved, it is claimed. When the system is used to page a person in one of the high noise level areas, the page message is reproduced at

by PHILADELPHIA BELTING CO.



Top left—Made from extra heavy leather, specially tanned with the hair left on. (Our No. 10 HAIR-ON.)

the hair left on. (Our No. 10 HAIR-ON.)

Top center—Extra large double loop heavy duty leather picker, designed especially for weavers of duck, canvas and similar materials. (Our No. 2 DUCK.)

Top right—Special size double loop leather picker for silk, rayon, etc. (Our No. 40.)

Bottom left—Heavy single loop, made from the finest grade of pure oak tanned leather, a good all around picker. (Our No. 20.)

Bottom center and right—Special double loop leather picker— (OUR WINNER.) Highly recommended for high speed looms. The sheet of plastic material in between the two piles of the loop gives added strength and long life. (Our No. 48.)

All of the above leather Pickers can be made with or without the bore, and they can be furnished in right-hand or left-hand styles, special trims or sizes to your specifications.

-WE SELL-

CASTERS Colson Bassick

HAND and PLATFORM TRUCKS American

STEEL LOCKERS and SHELVING Standard Lyon

INDUSTRIAL PNEUMATIC TIRES, WHEELS and CASTERS General

ODOM MACHINE MFG. CO. The Colonel Comb Box (Ball Bearing Action)

THE SUNRAY CO oving-Battery Filling and Yarn Trucks

EXCEL TEXTILE SUPPLY CO. oving-Doffing-Lap and Conditioning Trucks

PHILADELPHIA BELTING CO. Leather Pickers Leather Belting

KING CHEMICAL CO.

Floor Seal Floor Conditioning Machines Hand Soaps and Dispensers Scrubbing Compounds

C. R. DANIELS CO. Canvas Baskets and Trucks

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215 BUILDERS BUILDING

CHARLOTTE, N. C.

TELEPHONE 5-2946

MATERIAL HANDLING COST CAN BE REDUCED WITH THE PROPER EQUIPMENT

high volume through the trumpet station. To reply, the person called merely depresses a lever on the nearest conveniently located staff station. The trumpet is automatically cut out and two-way conversation at normal voice level can be carried on between the person paged and the originator of the call. Where necessary, the co-ordinated staff station can be located in a soundproof booth or in a quieter location. Background noise is thus eliminated and two-way conversation is clear and intelligible.

This combination of co-ordinated paging trumpet and two-way intercom station has unlimited industrial application, having been designed to solve high noise level communication problems in machine shops, press rooms, factory areas, laundries, shipping and receiving platforms, foundries and all other noisy locations. Constructed of heavy metal, these units are built to withstand rough usage. The trumpet reproducer, constructed of heavy gauge spun aluminum with durable grey wrinkle finish, is 101/2 inches in diameter and in over-all length, and is equipped with an adjustable mounting bracket. The compact die-cast metal staff station in matching color, designed for simple mounting on wall or partition, is six inches wide, 61/2 inches high and 31/2 inches deep. These stations can be wired directly to any Executone intercom or sound system and are manufactured by Executone, Inc., 415 Lexington Avenue, New York 17, N. Y., who maintain sales and service facilities in principal cities.

Savings In Metallizing Are Stressed By Metco

The November issue of Metco News, published by Metallizing Engineering Co., Inc., 38-14 30th Street, Long Island City, N. Y., tells how metallizing saves money in the maintenance of pumps. To help the readers solve their pump maintenance problems, the November issue of the Metco News shows the savings possible by metallizing a wide range of pump parts, both centrifugal and reciprocating; how owners of metallizing equipment are restoring such

pump parts as shafts, hubs, rods, plungers, pistons and sleeves. One user of metallizing reports savings of \$2,475 in one year, it is stated. Another user reports a job involving bronze packing sleeves—replacement cost of new bronze sleeves was \$44 each. They metallized these worn sleeves with stainless at a total cost of \$6.70 each. The metallized sleeves outwear a new bronze sleeve by four to one, giving this user a value of \$176 for \$6.70, it was reported. Cost and time estimates are also given on many other applications.

Dillon Universal Tester Described In Bulletin

A new four-page bulletin recently released by W. C. Dillon & Co., Inc., on the Dillon Model L Universal Tester, brings

valuable and practicable information to testers of virtually any type of material from fabrics to strong metals used in industrial production. It does more than illustrate and describe the portable Dillon Model L Universal Tester-a precision instrument of seven different ranges, widely used in industrial plants, universities and laboratories, for testing materials of tensile strength from a few pounds to 160,000 pounds, p. s. i.; it shows by clear photographs the simple construction for tensile, compression, transverse and shear testing; describes the handling of flats and rounds-fixtures for fabrics, cord, rope, wire, wood and adhesivesillustrates the clear easily read dynamometers interchangeable for all capacities. Copies of the bulletin may be had by addressing the manufacturer, W. C. Dillon & Co., Inc., 5410 West Harrison Street, Chicago 44, Ill.







WINDOW WONDER—Early entry of curtain fabrics woven of Fiberglas yarns, into the home-use field is marked by the announcement that sheer Coronized Fiberglas marquisette curtains will be available in retail stores throughout the country by early Spring. The Fiberglas marquisettes can be hand or machine washed, and can be re-hung, while still damp, without froning or stretching. Because the glass yarns shed dirt, the curtains will stay clean for unusually long periods. They will take approximately 30 washings without breakdown, slippage or color loss, and without losing their "new" look.

Cotton Materials Nearing O. P. A. Levels

The first major industry to overcome the inflationary effects of the post-war period may be the cotton textile industry, according to the current report of the Department of Agriculture which shows cotton materials to be selling at almost O. P. A. levels. The Production and Marketing Administration of the department gives October's average price of the 17 basic gray cloth constructions as 68.32 cents a pound, only 1.75 cents above the average for October, 1946, the last full month of O. P. A. ceilings. This average was 27.56 cents a pound under the post-war high of 95.88 cents reported by the department for December, 1947. This peak climaxed a year of advancing prices for unfinished fabrics, spurred largely by speculative demand, delayed and accumulative purchasing, record exportations and the pressure of avid buyers bidding for scarce goods.

Credited with being the major factor in bringing down prices has been the industry's record peacetime production. Although consumption has been and continues to be high, mills have not only met the demand but produced the additional materials necessary to restock depleted shelves. In 1947 a peacetime record of over 11 billion square yards of cotton broad woven fabrics were produced and for the first three quarters of 1948 production ran at a still higher rate in anticipation of an even greater demand as lower prices reach the consumer.

While the government's average price of cotton fabrics for October was slightly above final O. P. A. levels, individual prices of the more volatile items in the unfinished

cotton cloth market actually fell below O. P. A. ceilings. One of the most popular print cloths (39 inch 80×80 4.00) for instance dropped to $191/_2$ cents a yard compared with the last O. P. A. ceiling of 19.675, and many of the other popular print cloths and sheetings have been below O. P. A. levels at various times during the past weeks. Some market observers say the downturn may have gone too far, carrying some prices below cost of production, but in general they believe the situation is now in the process of correcting itself.

While fear of a larger cotton crop has slowed down buying, and probably been a factor in bringing about price reductions, current raw cotton prices are around those prevailing in the final days of O. P. A. Other costs of operation have zoomed however, with labor costs advancing 23 per cent from an average of 89.9 cents an hour in November, 1946, to \$1.106 for last August, the latest month for which Bureau of Labor Statistics figures were available.

Japan Using Textile Trade To Meet Deficit

A recent report from Tokyo indicates that the Japanese government will enter the domestic textile trade to finance its deficit for the coming year. The government plans to sell 11,000,000 yards of silk textiles and 15,000,000 pounds of cotton and rayon yarns in the domestic market at a profit of about 1,000,000 yen to cover part of the cost of rising wages to government employees. The goods were originally marked for export, but will be released to the Japanese public by permission of Gen. Douglas MacArthur.

Meanwhile, in London, the campaign being waged by British exporters against a revival of the Japanese textile Frederick J. Erroll, a Conservative member of Parliament, sought a pledge from the Socialist government that the industry moved onto the floor of the House of Commons. Lancashire textile industry will not be exposed to unfair competition in the overseas markets as a result of the recently announced \$220,000,000 trade treaty between Japan and the British Commonwealth countries. Harold Wilson, president of the Board of Trade, doubted the agreement would lead to repetition of Japanese undercutting of textile prices, which seriously hit the Lancashire exporters during the interwar years. He said he would gladly investigate any cases of unfair trading on the part of the Japs whether in terms of quality or price.

Pappas Gets Owens-Corning Scholarship

Chris Pappas, Jr., 25-year-old Navy veteran of Charlotte, N. C., has been awarded the newly-established Owens-Corning Fiberglas Corp. scholarship at the School of Textiles of North Carolina State College, Raleigh. Announcement of the award was made recently by company officials following a series of competitive examinations and personal interviews.

Mr. Pappas switched to textiles after a four-year tour of duty in Navy destroyers and minesweepers in the Pacific interrupted his study of electrical engineering in his senior year at Georgia Tech. He is a graduate of Central High School, Charlotte. The scholarships, established this year at part of the ation's retail merchandising calendar. The first

North Carolina State College School of Textiles, the Lowell (Mass.) Textile Institute and the Philadelphia Textile Institute, provide \$500 per year for both the junior and senior years. Scholarships are awarded on the basis of the candidate's marks, character, qualites of leadership and need. Hereafter, awards will be made in each of the three schools before the end of the sophomore year.

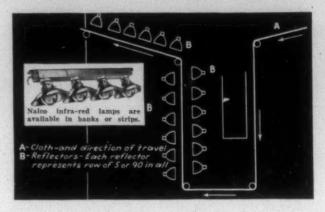
Johnson & Johnson Executives Write Book

Executives of Johnson & Johnson, manufacturer of hospital supplies, with home offices at New Brunswick, N. J., have written a timely book devoted to the improvement of teamwork and of productivity throughout business and industry. The book carries a foreword by General Robert Wood Johnson, chairman of the board of directors of J. & I. General Johnson has been active in management circles for years. During the war, he was chairman of the Smaller War Plants Corp. The book bears the title, Training Employees and Managers for Production and Teamwork, and shows that training within industry is the solution to the indifference, inefficiency and lack of teamwork which exists in many offices and shops today. Published last month by Ronald Press, the book was written by William McCord, director of industrial relations for Personal Products, a J. & J. subsidiary; Dr. Earl Planty, executive counselor at Johnson & Johnson; and Dr. Carlos Efferson of Gainesville, Ga., staff training director for Chicopee Mfg. Corp., another J. & J. subsidiary.

Textiles For Overseas Relief Sought

H. T. Greenwood, Jr., chairman of the committee which initiated the drive to obtain textile products for overseas relief purposes, for distribution through the American Friends Service Committee, announced Dec. 8 the continuing need for contributions to this work. Mr. Greenwood reporting on the campaign so far stated "the box score of gifts of the textile industry as a whole included 1,500,000 yards of cotton goods, over 110,000 yards of woolen fabrics and 80,000 pounds of miscellaneous material such as yarn, thread, tapes and bindings, and finished items of hosiery and sweaters." The material contributed was sufficient for many millions of garments, made by the peoples in the countries overseas. The keynote of this worthwhile service, surpassing anything previously achieved by a single

BOOST PRODUCTION - LOWER COSTS with NALCO infra-red LAMPS



Simple, flexible installations of Nalco infra-red heating lamps such as this have speeded up textile production as much as 40%—through faster drying, dehydrating and carbonization!

These extra advantages of Nalco radiant heat lamps can mean higher production—higher profits for your plant!

Operate at a fraction of the cost of

- Operate at a fraction of the cost of conventional ovens.
- No spoilage of materials—constant, high quality product.
 Instant action eliminates wasteful
- oven warm-up periods.

 Flevible immediately adjustable to
- Flexible—immediately adjustable to changing needs.

Write today for details on economical infra-red installation — no obligation.



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Sizing problems.

industry, is "to help the distressed to help themselves," Mr. Greenwood declared.

Hundreds of textile manufacturers are again being solicited for contributions to this program. Through the offices of the Philadelphia Textile Manufacturers Association another appeal letter has been distributed, carrying with it a folder addressed to the textile industry of the United States, "A Message of Thanks." Since the campaign initiated in Philadelphia over one year ago, several national associations have aggressively interested themselves in this project. Henry W. Weis of the American Friends Committee, 20 South 12th Street, Philadelphia 7, Pa., should be contacted for shipping instructions.

Bell Refutes Charges Of Union Witnesses

Charges by union witnesses in Washington that the textile industry is curtailing production for the purpose of maintaining high price levels are completely without foundation, W. Ray Bell, president of the Association of Cotton Textile Merchants of New York, declared recently. In a wire addressed to Senator Ralph Flanders (Vt.), chairman of the Joint Committee on the Economic Report, before whose committee witnesses were reported to have said the industry was cutting production instead of prices, Mr, Bell stated that "nothing could be farther from the truth, for the facts reveal exactly opposite experience."

Contrary to claims made by union officials before the Joint Committee hearings and also on frequent occasions through other channels over the past six months, government records of production and government records of prices show that the former has risen and the latter have declined to the extent that "prices of virtually all basic cotton textiles now approximate final O. P. A. ceilings." Referring to trends in profits which misinformed persons have claimed the industry was attempting to protect by cutting production, Mr. Bell indicated that the decline in cotton textile prices together with successive wage advances for employees in the mills and the high government support price on raw cotton have forced a situation where "marginal mills today are faced with actual losses and efficient plants look only for meager returns."

Bureau of the Census figures on production of cotton textiles, Mr. Bell stated, completely demolish the argument that mills have curtailed, since for the first nine months of 1948 total yardage of cotton woven goods produced was 7,397 million linear yards, or 143 million linear yards greater than in 1947 which was the all-time record year for peacetime production. In the same nine months, production of rayon and other synthetic woven goods increased from 1,384 million yards to 1,625 million, an increase of 16 per cent. Not only was the total production of cotton woven fabrics increased, but production has risen most sharply in the major categories of goods which have been in greatest demand. Thus, the largest single major classification of cotton broad woven goods, namely print cloth yarn fabrics, has showed an increase in output for the first nine months of the year of 223 million yards or almost ten per cent from last year's peacetime records.

Prices which were forced upward last year by shortage and very large demand have fallen substantially under the impact of the record rate of mill production. "With respect to market prices," Mr. Bell stated, "Department of Agriculture monthly averages on 17 cotton cloth constructions show a steady decline from December, 1947, to October of this year amounting to 27.56 cents per pound or over 28 per cent. The drop in values has been general, but most pronounced in standard fabrics of widest use." As an example of the latter he cited 80x80 print cloths which reached a high of 38 cents a yard last December, dropped into 19 cent ground just recently, and currently are quoted between 20 and 21 cents.

Current statements of union officials, Mr. Bell indicated, parallel a propaganda line laid down some months ago by Philip Murray, president of the C. I. O., who in an article in a national publication (Atlantic Monthly) injected the false idea that the textile industry was cutting production to support high prices. Mr. Murray's argument was likewise refuted by the facts in a statement by Mr. Bell published by this magazine. Data on the final quarter of the year, Mr. Bell stated in his wire to Senator Flanders, are not yet available, but should any curtailment of production occur in that period, it will be due "solely to the necessity for individual managements avoiding operational losses' and not to any attempt to buttress profits by cutting output. "In all my experience," Mr. Bell commented, "I have never known any textile mill which curtailed production for the purpose of artificially maintaining market prices.'

Textile Machinery Business Advancing

Although some textile mills report a drop in sales and national surveys indicate production and prices are beginning to level off, the textile machinery business in Providence, R. I., is forging ahead with payrolls consistently totaling more than a million dollars monthly. The situation is reported the same throughout the New England textile machinery field. In Rhode Island October payrolls totaled \$1,220,787, only slightly below the record \$1,245,251 of September. A pile-up of orders for machinery has been the rule rather than the exception in recent months. Yet records extending back to before the war show that million-dollar payrolls are new to the industry.

The reason is multiple, according to manufacturers. About 60 per cent of production goes overseas where foreign planners are attempting to build up their own textile industry for home cloth consumption. Recent machinery orders have been received in Providence from the Near East, India, Africa and South America as well as Europe. Modernization of the textile industry in this country, particularly in the South, is cited as another market waiting for

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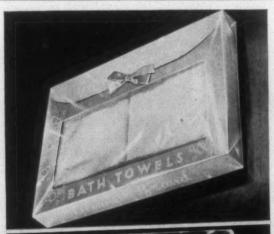
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New England-manufactured equipment. Plants are humming not on current orders but orders received more than a year ago, it is reported.

Trends In Vat Dye Methods Observed

Ormand W. Clark, manager of textile sales service for the Calco Chemical Division of American Cyanamid Co., addressing a recent meeting of the Canadian Association of Textile Colorists and Chemists, stressed three significant trends in vat dyeing. First, he pointed out, is the increasing willingness of textile plants to invest large sums in the newest models of well-enginered stainless steel equipment; second, the replacement of batch methods by continuous methods and the use of automatic controls wherever possible; and, third, inclusion in the dye manufacturers' color cards of an additional type of information, namely, data on the reduction and dyeing behavior of vat dyes over a wide range of conditions. Reviewing American practices, Mr. Clark emphasized that despite statements to the contrary "the newer continuous methods for applying vat dyes to piece goods are not suited for textile lines which involve dye lots of less than 5,000 yards per shade, and to utilize the equipment efficiently and with satisfactory profit, dye lots should consist of 10,000 yards or more per shade, and repeat orders of a limited range of shades should be the





RETAILER AID—These two packages are the latest suggestion of the Sylvania Division, American Viscose Corp., for merchandising bath towels and guest towel sets. Making a compact and attractive shelf or counter display, both packages offer a number of advantages for the progressive retailer and manufacturer. The Sylvania cellophane overwrap protects the towels so that the dealer need never contemplate mark-downs because of product soil from handling or storage. The use of a cardboard tray facilitates application of the cellophane overwrap either by hand or machine and provides handling durability. In addition, cellophane is an exceptional medium for sales messages and brand identification. Sufficient rigidity is supplied by the cardboard so that the unit can stand upright for complete sales visibility. A proven merchandising technique, unit packaging is a growing trend and the pictured packages represent some of its hest points.

Research Institute Holds Annual Meeting

The need for greater emphasis upon basic textile research was stressed at the 19th annual meeting of the Textile Research Institute held Nov. 18-20 in New York City. The parley had as its theme "Better Textiles from Basic Research" and authoritative speakers from various branches of the industry elaborated upon the subject. Testing instrument manufacturers pointed out that while recognizing the need for both basic and applied research, textile manufacturers have been showing a tendency to tighten up on laboratory expenditures unless the improvement pays for itself either by cutting down payrolls or effecting operating economies.

Speakers heard during the annual meeting included Theodore Felner, merchandising counselor of R. H. Macy & Co.; Dr. Milton Harris of Harris Research Laboratories; H. W. Rose of American Viscose Corp., chairman of the board of the institute; Maurice Holland, research counsellor; Angeline Dougherty of Vogue magazine; Pierre Sillan of Glen Raven (N. C.) Cotton Mills; Dr. William M. Scott of the Southern Regional Research Laboratory, U. S. Department of Agriculture; Dr. Robert W. Work of Celanese Corp. of America; and Dr. Richard Wilhelm of Princeton University.

A. G. Ashcroft, director of research and development of Alexander Smith & Sons Carpet Co., Yonkers, N. Y., was elected president of the institute. He also was named presiding officer of the board of directors. The chairmanship of the board, vacated by H. Wickliffe Rose of American Viscose Corp., Philadelphia, remains open. Other officers elected are: Kenneth Wilson, vice-president of Forstmann Woolen Co., vice-president; Richard T. Kropf, research director of Belding, Heminway, Corticelli Co., treasurer; and D. B. MacMaster, re-elected secretary.

Eight new directors appointed for three-year terms were F. Eugene Ackerman of the American Wool Council; Dr. Joseph Brant of Bates Mfg. Co., Lewiston, Me.; Dr. Miles A. Dahlen of E. I. du Pont de Nemours & Co., Inc., Wilmington, Del.; Bertrand Hayward of Philadelphia Textile Institute; Leonard Smith of the National Cotton Council, Washington, D. C.; Mr. Kropf, Mr. Rose and Mr. Wilson. E. C. Pfeffer, Jr., Cluett, Peabody & Co., Troy, N. Y., was elected to fill a vacancy which existed among the members

who are serving until 1949.

Preceding the institute meeting, the beginning of a four-year research project into the fundamental properties of wool, in an effort to increase the use values of all grades of wool, was anounced Nov. 17 at a luncheon meeting sponsored by the American Wool Council, the International Wool Secretariat and the Textile Research Institute. It was pointed out that this project is more than a mere research undertaking, in that it represents a world-wide co-operative action in which wool growers of Australia, New Zealand, land, South Africa and the United States are acting in unison to improve the service values of their product. Featured speakers at the luncheon were Harry J. Devereaux, president of the American Wool Council, and United States Senator Joseph C. O'Mahoney of Wyoming. Mr. Devereaux introduced Senator O'Mahoney.

Greater co-operation by textile mills and their research organizations with retailers, in order that fabric production can be geared more closely to consumer demand was urged by Mr. Felner. Admitting that textile research labora-

tories may already have many of the answers to the fabric problems confronting retailers, Mr. Felner declared, however, that "merchandise cannot be bought in pilot plants or laboratories." He asserted that textile research must be put to practical use before retailers and consumers receive the benefit of this research. In this respect, he asserted that research should be more interested in the needs of fashion. "Despite the fact that it is difficult for research men to be in daily contact with fashion people," Mr. Felner continued, "it is essential that some one in your organization be aware of the needs of fashion and pass this information on Pilot plants that develop new ideas should be constantly to you in a manner that will properly reflect fashion needs.

Cannon Opposes Lowered Tariffs

Charles A. Cannon, president of Cannon Mills Co., Kannapolis, N. C., recently expressed opposition to any reduction in tariffs on goods imported into this country. Speaking on behalf of the American Cotton Manufacturers Association, Mr. Cannon maintained that the American textile industry and particularly the American cotton goods industry, is in no position today to withstand the ravages of heavy imports from foreign nations.

As chairman of the A. C. M. A.'s legislative committee, the North Carolina textile man opposed reduction of tariffs on a range of items on which the tariff commission is considering trade agreements. "We are particularly emphatic in stating that the American textile industry, and particularly the cotton goods industry, is in no position to stand up

under assaults of heavy imports from nations which only a few years ago were conquered by the United States and open to fashion designers and retail people so that the close co-operation needed for this development can be achieved." whose economies are today being maintained, supported, and subsidized by American tax money," Mr. Cannon said. "We cannot subsidize the textile industry of a conquered nation and compete with that industry either domestically or in the world market."

Rayon Shipments Set New High Record

November shipments of rayon yarn and staple amounting to 92,900,000 pounds pushed domestic rayon deliveries over the billion pound mark in 1948, according to the Rayon Organon, publication of the Textile Economics Bureau, Inc. Deliveries in the first 11 months of the year totaled 1,005,900,000 pounds, an increase of 16 per cent over the corresponding period in 1947, and set a new high record for any 11-month period. Shipments in November, while one per cent below the October level, were 12½ per cent greater than those in November, 1947. During the month, filament yarn shipments amounted to 71,400,000 pounds, of which 45,800,000 pounds were viscose-cupra and 25,600,000 pounds were acetate. Staple deliveries in November aggregated 21,500,000 pounds (15,300,000 pounds viscose and 6,200,000 pounds acetate).

For the first 11 months of the year, filament yarn shipments totaled 762,700,000 pounds, of which 500,500,000 pounds were viscose-cupra and 262,200,000 pounds were

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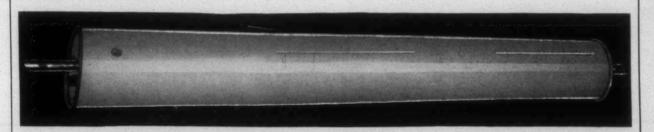
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Replacement of worn-out lamp automatically restores closed circuit—replacement of starter unnecessary. No button to push.

REDUCES COSTS

Magno-Tronic starters provide exact timing in the lamp electrode—preheating process preventing excessive loss of emission material thereby assuring the maximum in the useful life of a lamp. The established quality of this starter saves considerable time in maintenance and man hours required to repair and/or replace an inoperative lighting unit.

VERSATILE

Will operate efficiently over an extended voltage range under widely varying temperatures.

The (SP-15-20) for use with either 15 or 20 watt lamps
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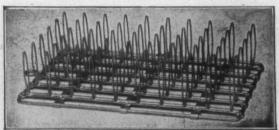
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acetate. Staple deliveries in the 11-month period amounted to 243,200,000 pounds, made up of 166,500,000 pounds of viscose and 76,700,000 pounds of acetate. For the 11-month period, viscose-cupra yarn showed a 6½ per cent increase, acetate yarn 33 per cent, viscose staple 13 per cent, and acetate staple 44½ per cent. Producers' stocks of rayon at the end of November amounted to 15,000,000 pounds of which 7,100,000 pounds were viscose-cupra yarn, 3,000,000 pounds acetate yarn and 4,900,000 pounds staple.

Estimating that dissolving pulp production in the United States and Canada during 1948 will approximate 750,000 short tons, the *Rayon Organon* points out that new dissolving pulp capacity currently in construction, or planned for construction in the near future, will increase output in the next several years by 275,000 tons. The new plants include those announced by the International Paper Co. at Natchez, Miss., the Celanese Corp. of America near Point Edward, British Columbia, and the Ketchikan Pulp and Paper Co. of which the American Viscose Corp. is principal stockholder, at Ketchikan, Alaska.

Analyzing the current world wool situation, the Organon estimates that global apparel and carpet class wool production in the 1948-1949 season will aggregate 3,800,000 pounds, grease basis, an increase of 21/2 per cent above the previous season, and the first increase since 1943-1944. A further increase is anticipated in the 1949-1950 season. World production of apparel class wools in the current season is expected to increase to 3,000,000,000 pounds, grease basis, about two per cent over the 1947-1948 output; carpet class wool production may increase by 41/2 per cent to reach 800,000,000 pounds. World stocks of apparel wool on June 30, 1948, approximated 3,600,000,000 pounds, grease basis, a decline of 15 per cent from the preceding year. A further decline to 2,800,000,000 pounds is forecast by the middle of 1949. World consumption of apparel wool in the current season is estimated at 3,800,-000,000 pounds, grease basis or 24 per cent above world output. Despite the adequate world supply of apparel wool, there is a shortage of finer grades.

United States production of raw wool continues to decline, the *Organon* points out. Shorn wool output in 1948, amounting to 237,000,000 pounds, will constitute the smallest output since 1923, and is six per cent under that of 1947. Contrary to the global trend, production of wool in the United States is expected to decline still further in 1949 to an estimated 225,000,000 pounds, grease basis. The decline in output is the result of a continuing decrease in the number of stock sheep. On Jan. 1, 1949, it is estimated that there will be about 29,000,000 stock sheep on farms, 1,500,000 head less than on Jan. 1, 1948. This estimate takes into consideration a reduction of eight per cent of this year's lamb crop and a relatively large slaughter of

Reduction of the sheep population in the face of rising wool prices and favorable weather conditions may appear to be anomalous, the *Organon* states, but an analysis of the situation shows that the principal reasons for the paradox are scarcity of skilled labor to handle sheep, high cost of operation relative to the price of wool, reduction of grazing allotments in National forests, low unit return from sheep as compared with beef cattle, and growers' fears of a decline in wool prices.

Based on the first nine months, domestic wool consump-

tion in 1948 is estimated at 700,000,000 pounds, scoured basis, one per cent less than 1947 and 6½ per cent under the record 1946 level. The high total figure for the current calendar year has been made possible by a record consumption of carpet wools which has almost offset the decline in apparel wool consumption. Domestic consumption of apparel wool in 1948 is estimated at 500,000,000 pounds, scoured basis, seven per cent less than that in 1947 and 19 per cent under the 1946 level, but 79 per cent above the 1936-1940 average.

The shift in emphasis from foreign to domestic wools is significant, according to the Organon. From 1942 until 1946, consumption of domestic apparel type wools declined, reaching a low point of 112,000,000 pounds in the latter year, a level of 54 per cent under 1942 and 47 per cent under the 1936-1940 average. The decline was due entirely to the fact that imported wools, duty paid, could be purchased during this period at prices below those charged for domestic wools. The trend was reversed beginning in 1947 as foreign wool prices rose. Use of domestic apparel wools this year will rise to about 210,000,000 pounds, 27 per cent above 1947, 88 per cent above 1946 and equal to the 1936-1940 level. On the other hand, foreign wool consumption at 290,000,000 pounds is down 22 per cent from 1947, 43 per cent under the 1946 record total and at the lowest level since 1941.

If the United States is not involved in war, it is probable that domestic consumption of wool in 1949 will decline below the 1948 level. High cost of living and growing consumer resistance is expected to reduce demand levels for many products. While the military requirement for the preparedness program may tend to raise demand, it cannot prove sufficient to entirely offset the decline in civilian purchasing.

The use of foreign wools by domestic mills is likely to increase in 1949 because of depletion of good quality wools of grades 60's and finer in the Commodity Credit Corp. stocks and low anticipated domestic clip.

Domestic consumption of carpet class wool in 1948 will reach a new record of 200,000,000 pounds, according to the *Organon*, exceeding last year's figure by 16 per cent. High level of consumer purchasing power and home building activity have created demand for floor coverings. If there is no sharp decline in employment and consumer income in 1949, carpet wool consumption will continue at a



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For truing up Card Cylinders before clothing or redrawing. Grinding your bare cylinders or doffer with this machine eliminates excessive grinding of newly applied wire.

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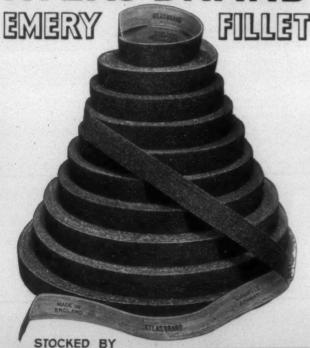
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high level. Wools suitable for carpets are considered to be in adequate supply, although some blending types are in short supply.

Establish Professorship At Textile School

The Lineberger Foundation of Belmont, N. C., has made a donation of \$50,000 to the North Carolina Textile Foundation, Inc., for the purpose of establishing an "Abel C. Lineberger Professorship of Yarn Manufacturing" in the School of Textiles at North Carolina State College, Raleigh. A. C. Lineberger, one of the best known and most successful fine yarn manufacturers of the South, began his career in the Wood Lawn Factory which was established in 1852 upon South Fork River in Gaston County, N. C., by his grandfather, John Lineberger. He later moved to Mt. Holly, N. C., and together with D. E. and A. P. Rhyne established the Tuckaseegee Mill. In 1910 he became interested in the mills which R. L. and S. P. Stowe had established at Belmont and together with them built a large group of combed yarn mills. At the time of his death in December, 1947, Mr. Lineberger, who was then 90 years of age, was president of 16 mills at Belmont and also president of mills at Salisbury and China Grove, N. C.

Having been one of the South's most successful yarn manufacturers, it was considered fitting that a professorship of yarn manufacturing should be established as a memorial to him. He was survived by four sons, Archie, Henry, Harold and Joe, all of whom reside in Belmont and are operating mills which he established. Under the plan adopted by the North Carolina Textile Foundation, Inc., the \$50,000 will, upon the basis of using both the interest and principal, provide a \$2,000 per year salary supplement for 34 years and thereby, for that number of years, make it possible to obtain a teacher who could not be secured at the college salary scale.

Huffines Cites Need Of Textile Training

In an address at the Lowell (Mass.) Textile Institute, Robert L. Huffines, Jr., president of Burlington Mills Corp. of New York, stressed the importance of training persons who wish to enter the textile industry. "The industry is the largest single employer of manpower in the United States," he pointed out. "Yet, in comparison with such professions as teaching and medicine, there is a definite lack of individuals being trained to come into the industry and further its advance in the world textile picture. The industry needs individuals who have had basic education in the textile field. It wants individuals who have a definite interest in making their career in the field, and who can contribute their knowledge and skill to its progress."

Smith Heads Textile Division Of A.S.M.E.

W. Arthur Smith, Jr., textile engineer of Carlyle Johnson Machine Co., Manchester, Conn., was elected chairman of the textile division of the American Society of Mechanical Engineers at the recent annual meeting of the group in New York City. Mr. Smith succeeds A. B. Studley of SKF Industries, Inc., Boston, Mass., who becomes Northern representative for the society. R. O. Palmer of Palmer Research Co., Shrewsbury, Mass., was named vice-chairman and Fred D. Snyder of Westinghouse Electric Corp. was

elected secretary. Others elected to executive posts include: L. T. Parkman, re-elected assistant secretary; C. D. Brown of Textile Engineering Service, Inc., Worcester, Mass., inter-society representative; and S. B. Earle of Clemson College, Clemson, S. C., re-elected Southern representative.

Record Volume Of Cotton Classed

The Production and Marketing Administration of the U. S. Department of Agriculture announced recently that as of Nov. 19 more than 7,000,000 bales of cotton have been classed by its 26 classing offices in the cotton belt. This is an all-time high record compared with corresponding periods of past years. The 7,000,000 total compares with 6,299,640 bales classed during the entire 1947 season. More than 5,000,000 bales have been classed for farmer-members of organized cotton improvement groups under the Smith-Doxey Act, straight loan classifications have numbered approximately 1,000,000 bales, and the remainder have been classed under the Grade and Staple Statistics Act, Cotton Standards Act, and the Cotton Futures Act.

Officials stated that the 26 classing offices are rapidly "catching up" with grower requirements for classification, especially in the rainfall belt east of El Paso. Classifications in most of these offices are now practically up to date.

Factors contributing to the extraordinarily heavy demand for classing service this year were (1) the unusually large crop of 15,166,000 bales of 500 pounds gross weight, compared with 11,857,000 in 1947; (2) relatively low cotton prices which greatly stimulated the demand by farmers for the classification of their cotton in order to participate in

the CCC loan program, and (3) ideal harvesting weather earlier in the season which resulted in unusually heavy ginnings. With insufficient funds, personnel and classing facilities, congestion in some classing offices could not be avoided. It was possible recently to shift classing personnel from the southern part of the belt to more northern locations. This helped to some extent at more critical locations.

Says Bottom Reached In Cotton Yarns

E. Owen Fitzsimons of Charlotte, N. C., president of the Carded Yarn Association, stated recently that the recession in cotton yarn prices, which some observers say is "past due," actually "has already occurred," with all counts of carded sales yarn, both single and plied, now selling under the last O. P. A. figure. As an illustration, Mr. Fitzsimons said that the Band AA price for the basic carded count—10s single—was 64.49 cents a pound on Nov. 9, 1946, the day prior to expiration of price controls. The price on this count, as quoted in the trade press is now 56 cents, a decline of 8.49 cents a pound, he noted.

If O. P. A. had continued in operation and had adjusted ceiling prices for November, 1948, to reflect changes in cotton cost, the ceiling would have been reduced by 6.47 cents per pound through application of the agency formula, he said. Thus Mr. Fitzsimons continued, based on a drop in cotton cost alone, under O. P. A. there would have been established a price of 58.07 cents—"at which 10s/1 could have been sold during the month."

However, he pointed out, the former O. P. A. figure included a labor cost computed on the basis of a 70-cent

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The boxes are divided into several compartments of various sizes so that adequate tools and some small supplies can be stored. They are mounted on casters and are narrow enough to be pushed down an alley between machines.

Each box has a vise mounted at one corner. The top of the box lifts up, as shown here; when it is down the surface is used for a workbench.

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hourly minimum wage. With the present minimum of 94 cents, the price of 10s/1 under O. P. A. formula would have been increased 3.84 cents a pound.

By adding this figure to the 2.07-cents-a-pound differential between O. P. A. and present market prices, the pricing agency would have set a price of 61.91 cents today on the basic carded number. These changes likewise would be applicable to the range of carded counts from 6s and under through 38s, single and plied, he added.

New Weaving Machine Seen Replacing Loom

Ultimate replacement of the conventional loom with a new type of precision-built weaving machine, an American made prototype of the Sulzer model developed in Switzerland, was forecast in New York City Dec. 3 by Myron S. Curtis of Cleveland before a group of textile men at the 69th annual meeting of the American Society of Mechanical Engineers. Mr. Curtis, director of engineering of the Warner & Swasey Co., said the first production models of the Sulzer machine are undergoing exhaustive tests and will be placed in sales production as soon as all tests are satisfactorily met. He told the textile engineers and manufacturers: "We are confident that the direct savings through the increased production and the collateral savings will be such that eventually the conventional loom with its shuttle, bobbin and picker stick will become as extinct as the dodo." The machine is named after the Sulzer Brothers of Switzerland who hold certain patents related to the ideas which engineers of the company had evolved independently, and with whom the company has made satisfactory contractual

The Warner & Swasey Co. has been operating Sulzer weaving machines built in Switzerland in its own plant for the past two years. "These have been operated on all kinds of materials, cottons, rayons, woolens and worsted," Mr. Curtis said. "For the last eight months we have been operating, either in our own plant or in pilot plants of textile mills, the prototypes of our own design and manufacturer." The "bugs" discovered during this eight months of operation-all of which have been errors of detail design or use of improper materials—have been corrected in the first production models, Mr. Curtis said. The company is subjecting the machine to exhaustive tests in its laboratory and shop. It will not be put into production for sale to the trade until it has been tried out in the shop of one of the company's "friendly customers" and all their criticisms successfully answered. Certain features of the Sulzer weaving machine are immediately apparent, Mr. Curtis pointed out. Among these are the total absence of overhead works, the weaving of two widths of cloth at the same time, and the formation of selvages on both edges of each piece of cloth. Though they look like the conventional selvages, they are really quite different, he said.

The machine is precision-built according to the best machine tool practice, and the individual parts are designed to be made according to the best American mass production methods, Mr. Curtis explained. Because of the use of the best materials, the elimination of certain parts, the precision workmanship applied and the running in oil of all parts subject to much wear, it is expected that maintenance of the weaving machine will be reduced to the limit. 'Due, also, to the use of machine tool type of construction, adjust-

ments when once made should stay put, and it should not be necessary to make constant adjustments while the machine is operating," he said. "Once it starts to weaving any particular type of cloth, the machine should operate throughout the run with no adjustments except when necessary due to variations in the warp or filling yarns."

"Even with all the cuts in manufacturing costs which we have made, this weaving machine is still an expensive machine," Mr. Curtis said. "It is a machine, not a loom. We still have to find out its economics, for no machine, however good it may be, can be sold unless it will make money for its purchaser. It requires no great amount of experience or figuring to see that this weaving machine produces a great deal more cloth than the conventional loom. But there are other collateral savings such as bobbins and bobbin winding, waste elimination, elimination of burling through the production of superior materials, reduction in supplies such as shuttles, picker sticks and picker straps, which savings can be well established only after a period of operation of a battery of the weaving machines."

At the same textile session, a new type of tensile testing instrument that utilizes electronic principles was the subject of a paper presented by Harold Hindman, president, and George S. Burr, vice-president of the Instron Engineering Corp. of Quincy, Mass. The authors stated it would determine the properties of materials under tensile loading with an accuracy heretofore unobtainable. This instrument is designed to measure accurately the load-elongation properties of such materials as textile fibers, yarns and fabrics, plastic films, adhesives, paper, rope, leather, and similar fibrous and non-fibrous specimens.

Carpet Industry Program Aids Retailers

The carpet industry's program to aid retailers was outlined last month at a meeting in Washington, D. C. Merrill A. Watson, president of the Carpet Institute, Inc., used colored slides to stress the industry's increase in national advertising and the value of a planned public relations program. He also emphasized the progress made by carpet manufacturers in styling and designing and how many retailers have increased sales by modernizing their stores, displays and selling methods. Other speakers included Joseph H. McFarland, vice-president in charge of sales for James Lees & Sons Co., and John Goodwill, director of public relations for Alexander Smith & Sons Carpet Co.

Discuss Industrial Mobilization Problems

Top-level representatives of three new Quartermaster Association commodity divisions met for the first time Nov. 18 with O. Q. M. G. and N. Y. Q. M. P. O. industrial mobilization planners to discuss ways and means of insuring adequate procurement of Q. M. C. supplies and equipment in the event of war or other national emergency. The meeting was held at the New York Quartermaster Purchasing Office, 111 East 16th Street, New York, N. Y. Conference participants were welcomed by Brig.-Gen. L. O. Grice, commanding N. Y. Q. M. P. O., who emphasized the urgency of careful over-all industrial mobilization planning at this time. Col. J. V. McDowell, O. I. C., N. Y. Q. M. P. O. Industrial Mobilization Planning Division, presided at the meeting. Groups represented consisted of the

Carpets, Uphostery and Drapery Fabrics commodity divisions.

In addressing the meeting, Maj.-Gen. William H. Middleswart, Deputy the Quartermaster General, stressed the importance to national security of the maintenance of (a) strong armed forces; (b) research and development of new and improved Q. M. C. supplies and equipment; and (c) the early formulation of industrial mobilization plans on a national scale which, in the event of sudden attack, would adequately support full-scale military mobilization. General Middleswart, in discussing military-industry co-operation in the development of the Quartermaster Corps industrial mobilization program, pointed out that production facilities surveys have already been completed covering some 2,000 plants throughout the country. Approximately 8,000 other plants—all potential manufacturers of critical Q. M. C. items—are scheduled for such surveys, he stated.

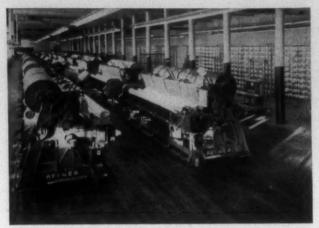
Representing the N. Y. Q. M. P. O. Industrial Mobilization Planning Division, Col. H. Mackintosh, O. I. C., Industrial Mobilization Planning Branch, Office of the Quartermaster General, summarized the industrial mobilization planning program as a whole. Lieut.-Col. C. A. Shaunesey summarized anticipated wartime requirements and basic military procurement problems in the textile field. Dr. S. J. Kennedy, Office of the Quartermaster General, discussed specific research and development problems covering the carpet, drapery and upholstery industries.

Charles A. Cannon, president of the Quartermaster Association, told the group that he was greatly encouraged by the whole-hearted participation by industry members in the work of the Quartermaster Association. Mr. Cannon expressed the opinion that such participation afforded the best



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possible opportunity for industry to constructively help in the shaping of industrial mobilization plans, to the mutual advantage of themselves and the government. He urged full co-operation of all suppliers with the Quartermaster Corps in the development of the over-all industrial mobil-

ization planning program.

Among those present at the conference were: E. I. Petersen, vice-president, Bigelow Sanford Carpet Co.; A. H. Gardner, vice-president, La France Industries; W. P. Mimnagh, Sidney Blumenthal & Co., Inc.; James Fri, president, Upholstery & Drapery Fabrics Manufacturers Association; W. A. Reynolds, Carpet Institute, Inc.; W. Ray Bell, president, Association of Cotton Textile Merchants of New York; and Paul Halstead, secretary, Cotton Textile Institute.

Final 1948 Cotton Crop Estimate Given

The Agriculture Department, in its final report of the year, estimated this year's cotton crop at 14,937,000 bales of 500 pounds gross weight. This figure is 229,000 bales less than 15,166,000 forecast a month ago. It compares with last year's crop of 11,857,000 and with a 1937-46 average of 12,014,000. Yield of lint per acre was estimated at 311.5 pounds. Last year it was 267.3 and 254.2 for the ten-year average.

The department estimated the acreage to be harvested at 23,003,000 acres. This compares with 21,269,000 for the ten-year average. In an accompanying report, the Census Bureau said 12,762,089 bales of this year's crop were ginned prior to Dec. 1. Ginnings to the same date last year were 10,040,613 bales and 7,367,490 two years ago.

Reports indicate that the government is well on its way again to becoming the largest single owner of cotton as a result of efforts to hold the price. Farmers are availing themselves of government loans of about 311/2 cents a pound-\$162 a bale-and so far this year nearly 2.3 million bales have been placed under the loan, 17 times as much as a year ago. Experts say that by late Spring the total in loans may reach five million bales, a record. The government has loaned 361 million dollars to date and more than 800 million dollars will be tied up if the peak figure is reached.

Just how much, if any, of this will be lost cannot be foreseen, because the government only underwrites bank loans to farmers and doesn't actually possess the cotton for two years. If prices go up in the meantime, owners repay the loan and sell the cotton. The farmer pays three per cent interest on his loan, which is split by the government and the banker.

Committees Report On Flammability

Broad recommendations leading to better control of textile flammability were unanimously agreed upon at the recent meeting of the technical and standing committees for the recommended Commercial Standard TS-4350 (flammability of textiles) held at N. R. D. G. A. offices, 100 West 31st Street, New York City. Cotton and rayon textiles interests, retailers, members of the A. A. T. C. C. flammability committee, and consumers who make up the standing committee will work together in developing an effective program designed to make immediate application of the findings of the year and a half study of textile flammability

conducted by the technical committee. While the technical committee reported that the testing devices are not accurate enough to be used satisfactorily in federal, state, or municipal laws, it recommended the use of the A. A. T. C. C. inclined tester as a guide to industry. A 58-page report summarizing the 18 months' study of fabric flammability by the technical committee was approved by the standing committee and recommended for wide distribution in the industry. The report covers two inter-laboratory testing programs in which 54 different cotton and rayon fabrics were tested by each of seven laboratories. The general conclusions of the report are:

1. Precise determination of fabric flammability is impossible by either of the testing methods under study. Inherent variations in fabre construction, together with uncontrollable differences in the manipulation of the testing machines, resulted in significant differences in the value reported by the several laboratories in many cases. The two inter-laboratory programs have shown that it is absolutely necessary to thoroughly test any rate-of-burning machine on a wide range of fabrics and in several laboratories before any valid conclusions can be drawn as to the reliablity of the test method or machine. Furthermore, correlation in the very rapid burning zone does not mean that correlation can be obtained in the critical zone in which hazard is differentiated from safety.

2. The inclined flammability tester developed by the A. A. T. C. C. is recommended as being preferable to the horizontal tester developed by the National Bureau of Standards for the evaluation of the flammability of textiles because: (a) smaller samples of fabric may be employed, (b) operation of the test is simpler, (c) results are at least as consistent as those obtained with the horizontal tester.

- 3. It is recognized that neither the inclined tester nor the horizontal tester can measure flammability of textiles with sufficient accuracy to make reference to such tests feasible in any municipal, state, or federal laws. Furthermore, although several flammability testers other than the horizontal Bureau of Standards machine and the inclined A. A. T. C. C. machines have been brought to the attention of the committee, there is no evidence to show that such testing methods are more satisfactory than those which have been studied by the committee. Thorough testing of all rate-ofburning devices is recommended.
- 4. It is believed that the inclined tester might serve as a guide to industry in the production of clothing fabrics which will have a minimum hazard to the public. Recommended modifications of this testing device might make its use suitable under such voluntary programs as the Commercial Standards of the National Bureau of Standards. Under such voluntary programs failure of the method to test to define flammability within narrow limits would not prevent its functioning in a useful manner.

Laboratories which co-operated in the study were those of the National Bureau of Standards, the California State Fire Marshall, J. C. Penney Co., U. S. Testing Co., Princeton Knitting Mills, American Viscose Corp., and the Industrial By-Products and Research Co. In the second testing program, the Mellon Institute for Industrial Research took the place of the Industrial By-Products and Research Co.

The technical committee reported that the inclined A. A. T. C. C. tester detects the dangerously flammable characteristics of fabrics of the type used in cowboy suits, and that the tester also furnished reasonably reproducible results on sheers and nets. Fabrics of the napped and brushed type, however, as well as chenilles, are still difficult to classify as safe or hazardous, partly because of fabric variations and in part because of differences in the method of preparing the fabric for test. The industry members present at the meeting felt that the method might now be used by mills as a guide while further study is being made to modify and improve the tester. It was suggested that the textile industry directly support an A. A. T. C. C. Fellow at Lowell (Mass.) Textile Institute who would work full time on improving the inclined method of test and who would report directly to the A. A. T. C. C. flammability committee. The A. A. T. C. C. committee would in turn report to the technical committee for Commercial Standard TS-4350.

Decorative Fabric Mills Look To 1949

James L. Fri, president of the Upholstery and Drapery Fabric Manufacturers Association, Inc., speaking before members at the association's annual meeting last month, declared that with the adjustment period for decorative fabrics now substantially completed, upholstery and drapery mills have put themselves in position to move forward more in line with the general business indices which are expected to continue at a high level at least for the first half of 1949. Mr. Fri stated that reports from the industry indicate that operating margins in many plants are now as low or lower than they have been at any time during the past decade. Also addressing the annual meeting were Lieut.-Col. C. A. Shaunesey, Jr., chief, Textile Division, Quartermaster Corps; Dr. Marcus Nadler, professor of finance, New York University; Walter Chamblin, Jr., vice-president, National Association of Manufacturers and Dr. H. E. Michl, economist, Cotton-Textile Institute.

The following officers were elected: Mr. Fri, president; P. B. Baldwin, Collins & Aikman Corp., vice-president; Harry A. Sovel, Quaker Pile Fabric Corp., secretary; Harold W. Burton, Moss Rose Mfg. Co., treasurer; Ellis Leach, E. F. Timme & Sons, chairman of the board; Milton H. Stern, Albemarle Weaving Co., Inc., chairman, executive



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committee. Following members were elected to the board of directors to serve for two years: John A. Cosentino, C. Cosentino Co.; Joseph E. Duval, Massachusetts Mohair Plush Co.; C. E. Neisler, Jr., Neisler Mills, Inc.; George Royle, III, George Royle & Co. Following directors were re-elected: A. H. Gardner, LaFrance Industries; Mr. Leach and Mr. Stern.

Textile School Installs New Machinery

The yarn manufacturing department of the School of Textiles at North Carolina State College, Raleigh, recently completed the installation of machinery that constitutes an experimental throwing unit. New machinery installed, obtained from the U. S. Textile Machine Co. at Scranton, Pa., follows: a double twister equipped to twist onto either six or seven-inch twister bobbins, and with creels adapted to handle spools, cones or cakes; a double deck upstroke twister equipped to twist from either six-inch spools or from 41/2-inch spools, and with takeup spools designed to handle either one-half pound or one pound each of thrown yarn; an upstroke face drive twister set up to twist from seven-inch spools onto a headless package.

Elliot B. Grover, head of the yarn manufacturing department, announced that in conjunction with the above and in order to have a well-rounded unit, the department also has installed a Whitin Schweiter automatic winder, a Universal No. 250-B nylon sizing winder and a No. 50 Pineapple Cone Winder. In the warp preparation department, he said, a new Cocker warper and warper creel have been installed and the Cocker Slasher entirely rebuilt. In the near future, he said, the department expects to acquire a U. S. Textile Machine Co. spooler, adapted to wind from skeins or cakes onto twister spools.

All-Purpose Machinery Seen For Future

"The textile machine of the future will be an all-purpose machine," Eugene C. Gwaltney, vice-president of Saco-Lowell Shops, told the student body of Lowell (Mass.) Textile Institute at its weekly convocation Nov. 24. Introduced by President Kenneth R. Fox, Mr. Gwaltney spoke on recent developments in textile machinery and predicted that in the future his company would equip textile mills rather than cotton or woolen mills. The mill of the future will have all-purpose machinery capable of handling almost any fiber any length, said Mr. Gwaltney, and his company has already, in experimental mill use, a drafting unit capable of handling the drawing or spinning of any fiber from one inch to 12 inches.

He complimented the textile students on entering the textile industry during a period of great change, which would offer them more opportunity than at any comparable period in the industry's history. After relatively little change in textile processes for nearly 200 years, the textile machinery business is just starting on innovations which are bound to revolutionize the old concepts of manufacture, he continued. His company has now under development, more new ideas in machinery than have been brought out in the last 50 years of machine manufacture. One new development in the experimental stage that offers great possibilities, is the use of supersonic sound waves to vibrate vegetable waste out of cotton. Mr. Gwaltney also hinted at a radically new approach to the cleaning and picking of cotton, making

possible the wider use of mechanically picked cotton with its greater amount of trash content.

Mr. Gwaltney quoted a survey which showed that labor costs on cotton varn were 15 times the investment cost which is way out of line with most of American industry and its dependence on labor-saving automatic machinery. The textile industry must modernize and make greater use of automatic and labor-saving machinery if it is to keep costs down and wages up, he continued. The tremendous sums now being spent by the machine builders for research and development is the answer to the problem of high wages with lower prices and insures a bright future for the technically-trained student entering the industry in these revolutionary times.

Fashion Show To Feature Unique Promotion

A unique promotion in which the grocery and laundry fields join hands with the fashion and textile industries to launch the theme of "Fashion Accents Crisp" has been announced. The feature of the promotion will be a cocktailtime fashion show, first of its kind ever staged, sponsored by the Linit division of the Corn Products Co. which will be held in the Grand Ballroom of the Waldorf Astoria Hotel, New York City, Feb. 2. Fifteen of the nation's foremost fashion designers will create three advance Summer costumes in starchable cotton each for the Linit showing, all keyed to the theme of "Fashion Accents Crisp." More than 1,000 guests are expected to attend the event. Detailed plans for this outstanding promotional event are now being developed. W. H. Gamble, president of the Corn Products Sales Co. explained what the promotion would mean to the grocery and super market field while W. E. Schmidt, vicepresident of the Corn Products Co. related the effects of the Linit style show to the laundry and textile fields. Malcolm G. Rollins and William J. McKenna of the C. L. Miller Co., advertising agency for Corn Products, outlined the campaign in detail.

Report Advantages Of Silica In Spinning

The possibility of spinning finer counts of yarns from shorter staple lengths than conventionally used, through the use of colloidal silica, was posed before members of the Carolina-Piedmont Section of the American Chemical Society at the annual meeting of the group last month at Mount Holly, N. C. Dr. Donald H. Powers of the textile chemicals department of Monsanto Chemical Co. declared that tests involving commercial silica sol such as Syton, in cotton spinning, showed increases of 50 per cent in tensile strength and 35 per cent in production. In 11s yarns spun from $1\frac{1}{16}$ -inch cotton, at 5.07 twist multiple, the yarn strength was increased 30 per cent, from 211 to 275 pounds, by the addition of Syton, Dr. Powers revealed. At 2.57 TM, yarn strength was advanced from 105 to 279 pounds, he said.

Dr. Powers reported that silica sol modifies to a similar degree the spinning properties of rayon, acetate and nylon. He said substantially larger quantities of woolen and worsted yarns have been processed with silica at the mill "because of the greater ease of woolen and worsted application under existing mill conditions." Mill production figures showed







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that silica made possible an increase in front roll speed and improved strength with reduced oil. High percentages of oil completely mask and blanket the effect of silica, while total elimination of oil permits the silica to impart so much drag that drawing may be prevented entirely, Dr. Powers noted.

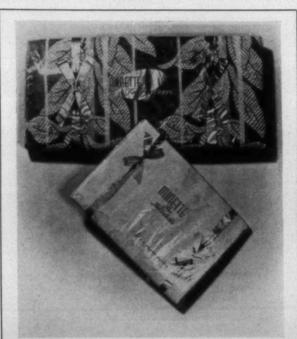
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"Experiments with silica sols on cotton prior to carding indicated that even low concentrations of silica prevented proper carding and drawing," he observed. Most satisfactory laboratory results were obtained by treating cotton card sliver with a dilute aqueous dispersion of silica sol with a powerful wetting agent to insure penertation. The card sliver was squeezed through a wringer to an 80 to 90 per cent pickup, and the sliver dried by infra-red lamps. Evidence tended to reveal, Dr. Powers said, that silica does not penetrate the cell wall of cotton fiber, but remains on the surface.

From mill tests with wool, Dr. Powers presented these figures: three per cent Syton increases tensile strength of 46s-50s Buenos Aires wools by 28 per cent, with production boosted 14 per cent; 21/2 per cent Syton increases tensile strength of shoddy picker clip 18 per cent and production eight per cent. By using oil and silica, Texas 64s are increased 28 per cent in tensile strength, with seven per cent better production, it was stated. Silica has no effect on subsequent dyeing.

To Study Jap Textile Machinery Industry

The National Association of Textile Machinery Manufacturers soon will send a representative to Japan to make a study of the textile machinery industry in that country. While no details were available, it is reported that the domestic industry has received conflicting reports as to the status of the textile machinery situation in Japan. Thus, it



MATERIAL AND LABOR SAVER—C. F. Harry, Jr., of Minette Mills, Inc., Grover, N. C., reports that the firm's new printed cellophane wraps save 20 per cent of former packaging cost and 40 per cent of the labor. The new, gold printed cellophane wrapper was designed and produced by Dobeckmun Co., Cleveland, Ohio.

is said, first-hand information is considered necessary. Some textile machinery people here have heard reports that Japan was offering textile machinery for export at prices far below those of domestic manufacturers.

Two A.A.T.C.C. Units Elect New Officers

Four units of the American Association of Textile Chemists and Colorists have held meetings in recent weeks. A brief summary of news from these meetings, and from the national organization, follows:

Southeastern Section: Held its final 1948 meeting Dec. 4 at Atlanta, Ga. The technical session was featured by a presentation of the section's intersectional contest paper entered in the 27th national convention, read by Dr. Howard M. Waddle of West Point Mfg. Co. The technical session was followed by a symposium on starch, arranged by the Corn Industries Research Foundation. Robert W. Philip, vice-president and director of Callaway Mills Co., addressed the banquet session in the evening, relating his experiences on his recent trip to England.

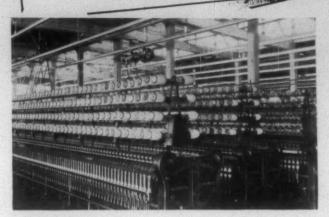
News items of interest recently released by the national organization follow: An A. A. T. C. C. project recently completed combined a theoretical approach with practical laboratory evaluation and indicated that common salt is interchangeable with Glauber's Salt. Practical mill application is now going on. . . . Users of Fade-Ometers are informed that the new calibration papers will shortly be available from the U. S. Bureau of Standards. . . . Work is still in progress on development of a new Launder-Ometer test to predict serviceability of colored fabrics in commercial laundering. . . . A simpler technique for perspiration testing, capable of better reproductibility will shortly be presented for approval. . . . Atlas Electric Devices Co. has presented the association with a new Launder-Ometer of the latest type with vari-speed drive and a pump for draining the water bath. It is also equipped for specialized experimental work. This is a useful addition to the association's facilities at Lowell Textile Institute and will be used by the association in its research program.

Russia, Czechs Sign Trade Agreement

A textile trade agreement recently reported to have been accomplished between Czechoslovakia and Russia calls for an increase next year of 110 per cent in the volume of textile trade between the two countries. Russia will send



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Czechoslovakia 45,000 tons of cotton, 1,500 tons of wool and about 2,000 tons of other textile raw materials.

Commenting on the deal, Czech officials said Soviet cotton will "in great part replace American cotton both as to quantity and quality." This indicated that the cotton will be long staple, which Czechoslovakia has had to buy from the United States, Egypt and Pakistan heretofore. Purchases have lagged because of short dollar and sterling credits.

Italy Exporting Textile Machinery

The textile machinery manufacturing industry in Italy is reported to be forging ahead among Italian industries showing the greatest recovery. According to R. J. Tesar, export manager of the Rostan Machinery & Equipment Co., New York, Italy bids fair to become a factor in shipments of worsted and cotton textile machinery to the United States, particularly to mills in the South. He pointed out that domestic manufacturers of textile machinery are still working on a heavy backlog of orders, delivery of which will extend considerably into the future. He asserted that the Italian producers are able to make delivery within three months on such items as combers and carders.

A large shipment of textile machinery for the manufacture of worsted yarn was received from Italy recently by Ernest L. Frankl Associates of New York. Mr. Frankl said the fact that Italy was able to export the machines in competition with England and France, heavy producers and exporters of worsted machines, was proof of the growing recovery of Italian industry.

Textile Expert Hits Bungling In Germany

Howard Veit, well-known textile authority, writing in the 1948-1949 International Edition of The Cotton Trade Journal, states that "the greatest obstacles to economic progress in Germany are those created by theorists in military and in German government." Mr. Veit, whose article appeared in the German section of the journal, declared "as a matter of fact, there are five planners to each worker instead of one planner to every 1,000 workers." He saw as the second major obstable the difference in ideology that exists between the Allied Governments, citing the conflict between the American belief in private enterprise and the British loyalty to a program of nationalization. Mr. Veit was formerly chief of the textile section of the Joint Export-Import Agency of the United States and United Kingdom Zones in Germany and former chief of the textile branch of the Office of Military Government of the United States.

National Cotton Week Slated May 9-14

National Cotton Week in 1949 will be observed during the period May 9-14, according to a joint announcement recently by the Cotton-Textile Institute and the National Cotton Council. This is one week earlier than usual. The change came about as a result of a poll of retail opinion which unanimously favored the earlier date. With cotton goods again in abundant supply, retailers are planning extensive promotions of both men's and women's wear cottons and are anxious to launch them with Cotton Week promotions as early in May as practical. A check of promotions this year disclosed that men's wear promotions in the principal retail trading centers of the northern tier of states

began early in May and yielded unexpectedly favorable response. Cotton Week next year will also coincide with a number of civic events, chief among them being the Memphis Cotton Carnival. In other cities in the Deep South, especially in cotton growing and manufacturing areas, there will be gala celebration of Cotton Week with festivals and special civic events such as exhibitions of cotton products and fashion parades.

Sponsors of the event stated that the support of other industries and various public utilities is being attracted. For example, the activities of the Cotton Bag Market Committee, which has been promoting the greater use of cotton goods in the food field, is expected to enlist new co-operation of many food wholesalers and retailers. Cotton Week was inaugurated 19 years ago and has become an integral part of the nation's retail merchandising calendar. The first few observances were built around the need of moving surpluses of cotton textiles in both wholesale and retail channels. During the war years, the theme was conservation. In recent years, the event has become a combined merchandising, public relations and social affair.

National-Standard Establishes Fellowship

The National-Standard Co. of Niles, Mich., has established an industrial fellowship at Mellon Institute in Pittsburgh, Pa., to investigate in a long-range program major problems related to the technology of fine wire products, such as tire bead wire and textile wires. The fellowship is headed by Charles H. T. Wilkins, formerly metallurgist with the Copperweld Steel Co. Mr. Wilkins was graduated

at Virginia Military Institute (B.S. in chemistry, 1942) and subsequently has pursued advanced work in metallurgy at the University of Pittsburgh, receiving his M.S. there in 1946.

Campaign Would End Misuse Of Term 'Mohair'

A campaign to end misuse of the term "Mohair" in upholstery fabrics and other products containing little or no mohair was put into motion recently at the annual convention of the Texas Sheep and Goat Raisers Association. The campaign includes application to the Federal Trade Commission for rules governing the use of the word "Mohair," notification to better business bureaus of the "gross deceptions" being practiced upon the public, and drastic legal action against offenders. Chemical analyses will be made of upholstery fabrics, drapes and other household products labelled as being mohair or containing mohair, and where these analyses indicate deception through absence of the fiber or use of only a small percentage, legal action for fraud will be undertaken. The educational program will be directed to the public through appeal to better business bureaus, consumer organizations and state bureaus enforcing laws covering upholstery. It will be financed by a special tax on the mohair growers of Texas and other states.

Application to the Federal Trade Commission will be made by Texas Sheep and Goat Raisers Association, the National Wool Growers Association and the American Wool Council. The determination to initiate the campaign was decided upon after speeches by Nathaniel Duval of the Massachusetts Mohair Plush Co., Boston, and F. Eugene



Ackerman, textile consultant and executive director of the American Wool Council. Mr. Duval explained the extent of the misuse of the term "Mohair" in upholstery fabrics containing only small percentages of the fiber. He urged that the name "Mohair" be protected not only in the interest of mohair growers and manufacturers using mohair, but also in the interests of the public, which, he said, was being sold upholstery which gives inferior use and service. Mr. Ackerman emphasized the necessity for fiber identification in all fabrics as an essential for honest merchandising.

Tufted Textile Group To Meet May 26-28

The fourth annual convention of the Tufted Textile Manufacturers Association will be held next May 26-28 at the Biltmore Hotel in Atlanta, Ga. Attendance at previous conventions has averaged between 350 to 450 persons and the 1949 meeting is expected to attract a record gathering, according to Henry C. Ball, executive vice-president of the T. T. M. A. Important business facing the association next year includes the inauguration of commercial standards for the industry, adoption of a standard sales contract, and other items. Thomas J. Brown of Calhoun, Ga., association president, said he would appoint convention committees in the near future.

Acala 1517 Cotton To Reach More Spinners

The high quality of Acala 1517 cotton is being certified on 100,000 bales this year, according to an official of the Acala 1517 Cotton Association of State College in New Mexico. The distinctive tag of the Acala 1517 Association, bearing the trade mark of the association, will reach an increased number of spinners this year. The official stated that the El Paso, Tex., area is rapidly gaining a reputation in fine spinning circles for the production of a high quality staple. The association is undertaking a publicity campaign to acquaint shippers and spinners with the qualities of Acala 1517, and with marketing practices in the El Paso concentration and compressing area. It is being pointed out that buyers of cotton from the El Paso market are often confused as to the variety and strain of cotton they are getting.

The official said, "Many thousands of bales of cotton pass through the El Paso market that were not grown in the El Paso area and are not Acala 1517 cotton. Regardless of whether or not the El Paso tag is on the bale, the bale does not contain certified Acala 1517 lint unless the tag with the trade mark of the association is also attached to the bale, plus a stub of this tag pressed into the bale. Spinners should not be misled as to the contents of bales not bearing the authorized tag of the association."

The official added, "This does not mean that other cottons passing through the El Paso market are of inferior quality. It simply means that they are not certified Acala 1517 lint. To be sure of getting the known high quality of Acala 1517 lint, the buyer should insist on the Acala 1517 trade mark on and in the bale. Any inference that a bale carrying the El Paso compress tag alone is Acala 1517 is not justifiable. Only the association, through its voluntarily co-operating growers, can certify the lint, and then only after the grower has complied with strict regulations regarding the purity of the seed he grows, and the care with which he gins and keeps it separated from other lint. Officials of the associa-

tion are charged with seeing that these regulations are enforced. We have every hope," he concluded, "that the high reputation of Acala 1517 will be maintained in America's cotton markets."

High Wool Prices Laid To Europe

Wool prices in Australia, upon which we are dependent for the largest percentage of our fine wools, have advanced from 15 to 20 per cent since September due to large purchases by Italy, France, United Kingdom and Russia, Curt E. Forstmann, president of the Forstmann Woolen Co., who has just returned from an extended trip to Australia, declared recently. The statement is contained in a report to the American Wool Council in which Mr. Forstman states that "it is paradoxical that these countries, which, with the exception of Russia, are maintaining their economies on money borrowed from us, are in a position to inflate world wool prices at the cost of American manufacturers and the American public."

Says King Cotton's Throne Still Secure

"Old King Cotton," whose abdication as the nation's number one money crop has been regularly predicted for decades, is today as firmly enthroned as ever and shows many signs of expanding his empire, according to Arthur B. Studley, sales executive for SKF Industries, Inc., as well as chairman of the American Society of Mechanical Engineers' textile division. Economic prophets have been predicting the demise of cotton since 1865, but a dozen sources today provide striking evidence of vigorous activity in the snowy staple that is stimulating not only to Dixie but to communities a thousand miles away. Top-flight organizations such as Warner-Swasey of Cleveland, SKF Industries of Philadelphia, M. W. Kellogg of Jersey City, and many others in diverse fields are today finding new opportunities in this historic American commodity, he declared.

The deep interest of these firms, which specialize, respectively, in machine tools, anti-friction bearings and oil refining equipment, is prima facie evidence of the scope of the textile revolution which also finds at least one shipbuilding and dry dock firm partly converting for the manufacture of textile machinery. The net result is that cotton, now used in at least 7,000 industrial applications, as compared to only hundreds a few years back, bids fair to remain a long time as the bulwark of the \$10,000,000,000 textile industry and the principal livelihood of one-sixth of the nation's working population—some 11,000,000 people, to be exact.

The reason is that the cotton field and cotton mill, both of which have long operated in the economic doldrums, are today undergoing a simultaneous mechanization which demands a host of new machinery, ranging all the way from cotton pickers to intricate and automatic thread spinners. Textile earnings and purchases are at an all-time dollar high, and wage levels and living conditions have risen to a point where the industry can now compete for skilled workers with most others. Last year alone, textile mills spent in excess of \$400,000,000 for new plants and equipment. Expenditures are continuing at a high rate this year and at least one-fifth of the nation's textile firms expect to spend even more in 1949 than this year. A great part of this is going into cotton mills and machinery since in normal years cotton accounts for more than three-fourths of the

poundage of all textile fibers used in the United States, including wool, rayon, silk, jute and flax.

'More machinery is being offered to the textile industry now than at any other period in its history," says Mr. Studley. "A notable feature of the new mill machinery is the record-breaking use of anti-friction bearings in many types of spinning, weaving and knitting units where emphasis is now strong on labor-saving, less maintenance and longer wear." Paralleling these mill improvements, Studley noted, is the increase in production and use of mechanical cotton pickers and several noteworthy changes in cotton gins that prevent loss of grade values in processing mechanically harvested cotton. Continental Gin Co., which has pioneered several new types of ginning machinery, now reports 8,400 gins in operation, as compared to 12,000 in 1938. Improved machinery, incorporating more adequate cleaning and drying processes, enables this smaller number to meet all demands while actually contributing to production of better grades of the staple. As for mechanized growing of cotton, Studley quoted National Cotton Council statistics showing a seven-to-ten-fold increase in the use of spindle type pickers.

Less than 200 of the spindle type pickers were in operation across the entire cotton belt in 1947, he said, but one new Southern plant alone will produce as many as 1,500 of the machines this year. From 10,000 to 15,000 stripper type pickers are reported in use in the plains areas of Texas, Oklahoma and the Carolinas. Behind all this buzzing activity is a bulky catalog of pertinent facts attesting to King Cotton's robust position.

Every inhabitant of the United States, for example, annually uses 26 pounds of this ubiquitous product compared

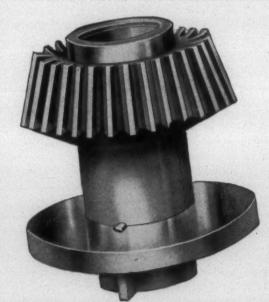
with 24 in the 1935-39 period. On the basis of the latest census figures, which show a 4,000,000 population increase, this means that more than three billion pounds of cotton are being used yearly in some form since 1943. Automobile tires are the largest single user, and some statisticians estimate that the assembly of every million cars requires the production of 400,000 acres of cotton farms.

While rayon is moving into this field, cotton statisticians say the loss is more than equalized by the rapidly increasing demand for textiles of mixed fibers—combinations of cotton with various synthetic fibers to gain the advantages of both. For example, the industry in 1947 produced no less than 160 million yards of cloth of mixed rayon and cotton.

Mechanical innovations contributing to what may be the greatest sociological and economic strides that cotton has made since Eli Whitney invented the gin, include: greater use of automatic controls; looms with speeds two or three times faster than heretofore possible; widespread use of ball and roller bearings in virtually everything that turns in a mill; multiple-purpose equipment that eliminates or combines operations, and many other engineering improvements designed to enhance the quality and quantity of this picturesque commodity which now appears to have a future equal to or even better than its past.

Sweden To Slash Textile Imports

Sweden will make a big cut in its textile imports in 1949, it was revealed recently upon approval of the Swedish imports program. The reductions were made necessary by Sweden's shortage of foreign assets. Hardest hit are tex-



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tiles, most of which come from Britain in the form of men's ready-to-wear. These are to be cut 37 per cent from the equivalent of \$287,000,000 to \$175,450,000. The cut in imports from the United States will be in automobiles, nylons, iron, steel and machinery.

Du Pont Plans Chemical Plant In Texas

The purchase of one tract and the exercise of an option on another-1,700 acres in all-in the Guadalupe River Valley, near Victoria, Tex., for a projected chemical plant was announced Nov. 29 by E. I. du Pont de Nemours & Co. Victoria is 120 miles southwest of Houston and 72 miles northwest of Corpus Christi. The ammonia department has concluded preliminary engineering studies of the site, with a view toward building there a third plant to make chemical intermediates for nylon. These intermediates would be supplied to other Du Pont plants at Seaford, Del.; Martinsville, Va.; Chattanooga, Tenn., and Parkersburg, W. Va., for the manufacture of nylon fibers and plastics. "The Victoria project is, of course, only in the early planning stage," said E. D. Ries, general manager of the ammonia department, "but if our plans progress according to the schedule we wish to meet, we expect to begin detailed design, ground preparation, etc., early in 1949."

Du Pont Official Discusses Synthetics

"Knowledge of linear polymers has now reached a stage of development which makes it easy to synthesize a new fiber-forming polymer," Dr. G. Preston Hoff, assistant manager of the technical division of the Du Pont Co.'s rayon department, stated recently. "The difficulty arises in finding a material with the right combination of properties to fill needs not satisfied by existing fibers," he continued, in an address on "Research and Synthetic Fibers" before the chemistry and chemical engineering faculty, students, and alumni of Ohio State University, Columbus, Ohio. His talk was made in conection with ceremonies marking the 75th anniversary of the establishment of the chemistry department at the university, from which Dr. Hoff received his doctor of philosophy degree in chemistry in 1925.

Dr. Hoff said that the matter-of-fact words in the title of his talk "all but conceal the drama of a great story of science and industry that almost perfectly reflects the partnership between university and industrial science. . . . I speak of the linkage between the men in their classrooms and laboratories, working under the guidance of wise teachers and in an atmosphere of academic freedom and adventure, and industrial chemists in free America beyond university campuses."

"Beginning around 1925," he said, "and continuing through the present time, a revolution in textiles has been taking place in America. In one of its manifestations, it has appeared as a part of a social revolution. And in another, as a part of an industrial revolution. It is now gathering such momentum as to make it appear that the last 23 years were only a beginning.

"Consider for a moment the social aspects of what I have chosen to call a revolution. This revolution began, of course, with rayon, the first man-made fiber. When research transformed the fragile, shiny, and unlovely fibers of what once was called 'artificial silk' into warmly beautiful fabrics of rayon, raiment as appealing to the eye as the silks of

the East were to be bought by American women at reasonable prices. It should not be necessary to dwell upon another aspect of the revolution. It gave America a new industry.

"When our company began rayon manufacture in 1921, there were only two rayon companies in the United States. They employed but a few thousand people. Today no less than 15 rayon-producing companies directly employ 67,000. They serve approximately 150 weaving mills, employing another 112,000. The industry includes 575 rayon converters, mostly small concerns, and 585 dyeing and finishing firms. About 3,500 companies make rayon cloth into finished garments sold through some 9,000 retail outlets. It all adds up to an industry of more than 13,000 separate business enterprises with a total of one and a quarter million workers."

"I sometimes wonder," Dr. Hoff continued, "if in the patient accumulation of knowledge, it could be possible that we may be working by evolutionary processes toward a time when there will always be work for men who want it. Certainly we can say that chemists in their laboratories have provided steady work to countless thousands of men outside the laboratories. For there can be no question but that the American textile revolution was given its vital spark, its driving force, by research."

Dr. Hoff emphasized that industrial research does not end with the discovery of a new product. "Nearly always, much more time and money are spent in finding a way to make the product at a suitable price level—and in improving the quality—than was spent in discovering the product.

"Among the beneficiaries of this kind of research are men to whom the new product gives employment, since process development and constant process improvement raise worker productivity, which in turn is reflected in higher wages. The function of research in making the individual worker more productive may be illustrated from the experience with synthetic fibers. For some of these, the production of one man-hour is equivalent to the output from between 65 and 100 man-hours in the silk industry."

He pointed out that the diverse scientific knowledge which made possible today's synthetic fiber industry came from scientists in virtually every corner of the world. "This demonstrates with abundant clarity," he said, "a truth which many who are not scientists sometimes overlook, namely, that scientific isolationism is as outmoded as political isolationism.

"If we but stop and look about us, we will see evidence on every hand of a close relationship between the rate of scientific discovery and development and the freedom with which scientific information may be exchanged among scientists throughout the world. . . . All phases of scientific learning are interdependent. . . .

Tracing the development of nylon and the more recently announced Orlon acrylic fiber, Dr. Hoff said that "the concept of truly synthetic fiber-forming polymers was slow in developing, and it is upon this concept," he pointed out, "that the new science of synthetic fibers is based. It took a genius with a mind free of preconceptions to show the way. These requirements were supplied," the speaker continued, "by the late Dr. Wallace Hume Carothers, who directed the research which led to the development of nylon."

Speaking of new synthetic fibers, Dr. Hoff said that

Orlon, which was announced by Du Pont recently, "makes available to the textile industry a synthetic fiber with a new set of characteristics. It possesses a combination of properties which make it useful for many purposes for which we would not recommend either nylon or rayon. For one thing, its resistance to sunlight makes it the best fiber we know of, natural or synthetic, for use in outdoor fabrics. In addition, its chemical resistance recommends it for filter fabrics and for the bags used in the collection of hot dusts. It may have a place in the collection of fly ash from factory chimneys."

Speaking of the cost of the broad, continuing research necessary to develop the synthetic fiber industry, Dr. Hoff referred to the growing tendency in this country "to regard bigness in itself as inherently evil and, therefore, meriting distrust for no better reason than its size. . . . Thirty years ago, rayon attracted little interest in the textile industry, while nylon and Orlon weren't even gleams in the fiber chemist's eye. Yet business was willing to risk millions of dollars—on theoretical possibilities.

"The Du Pont Co., only one part of the total rayon industry, has spent more than 30 million dollars on rayon research since the beginning. Comparable sums have been involved in the case of nylon and will be required for Orlon. Only a large organization can engage in research of that magnitude.

"To be sure, from the risks Du Pont and others in the industry took, profits were made. But they were made as well for the weaving mills, the knitters, the dyers, the finishers, the converters—and among them all are small firms, some of them one-man enterprises. Furthermore, the public

benefited enormously when these new materials were made available to them.

"American industry needs both large and small business enterprises. There are many jobs which can be done to advantage by small businesses—including even one-man enterprises—but only large concerns could have afforded the research expenditures and plant investment that were needed to build up the American synthetic fiber industry. I like to think of big business in America as being big because America needs bigness to do some of the big jobs which still lie ahead."

England's Textile Capacity Is Described

In an address to the Atlanta (Ga.) Rotary Club Fuller E. Callaway, Jr., LaGrange, Ga., textile executive, described textile conditions in England today as he found them on a recent trip to that country. He said, "There is more textile capacity in England than there is in the entire United States. The people are actually shabby, and yet the textile industry is operating only 4.8 hours per day. And the reason is that a working man can earn enough money in two days to spend all his coupons. After the coupons are gone, the money is worthless."

Sirrine Foundation Increases Aid To Clemson

Trustees of the J. E. Sirrine Textile Foundation, after having recently made their first visit as a unit to the Textile School of Clemson College, have decided to increase aid of the Foundation funds to the school. The Foundation last

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"T. M., old boy," one spectre was saying, "how would you like a nice black depression to come along and swallow up your whole company?" And a greeneyed ogre leered, "While you're neglecting your free-enterprise system, we're moving in with another

system!"

Stanton's body lurched. "No!" he thundered. Awakened, he scratched his head, murmuring, "Gad, what a dream! H-m-m—wonder what sort of contribution I ought to be making..."

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Spring decided to supplement salaries of professors, provide funds so that professors could go out into the field and supply teachers would be available. Certain aids, it was decided, would be increased, looking toward the improvement of the school and providing a better educational background for the young men who will be stepping into executive jobs in mills of the section.

Textile Leaders Hosts To QM Corps

Leaders of all sectors of the textile industry acted as a reception committee at the Textile Square Club sponsored dinner Dec. 8 which cited the activities of the Quartermaster Corps. Held at the Hotel Astor, the dinner featured addresses by Maj.-Gen. William H. Middleswart, Office of the Quartermaster General, Washington; Brig.-Gen. L. O. Grice, commanding officer of the New York Quartermaster Purchasing Office, and Lieut.-Col. H. O. McGillin, Office of the Quartermaster General, Washington.

Offers To Sell 1947 CCC Loan Cotton

The U. S. Department of Agriculture announced Dec. 1 that it is offering for sale on a competitive bid basis, all 1947-crop Commodity Credit Corp. loan cotton pooled for producers' account on Aug. 1, 1948. These stocks consist of about 28,000 bales of upland and 30 bales of American-Egyptian cotton. No sales will be made at less than parity prices. All sales will be handled by the New Orleans P. M. A. Commodity Office, Masonic Temple Building, New Orleans 12, La. Copies of the offer and details of the program may be obtained from the New Orleans office.

British Machine Estimates 'Trash'

A British research association has produced a machine which accurately estimates the proportion of "trash" in raw cotton, thus meeting one of the greatest needs of the cotton industry. Trash consists of such matter as stalk, leafy material and dust, and the buyer must estimate its proportion accurately when inspecting cotton bales, since an under-estimate of even one-half per cent can mean serious loss. Normally, the estimate has been made by visual inspection, obviously liable to error.

The machine which now answers the problem is a comparatively simply and inexpensive tool known as the Shirley Analyser. It operates by effecting a practically complete

separation of lint in a sample from dust and other different classes of foreign matter. The principle on which it works is the difference in the buoyancy of cotton fiber and trash. Raw cotton is fed into the machine, where it is at once thoroughly opened up, thus releasing the trash. It is then introduced into a uniform controlled stream of air in which there are no eddies. The trash, being relatively heavy, falls through the air stream into a receiving tray, but the more buoyant fibers are carried on the air stream to a rotating drum. This collects the fibers, a connecting fan exhausting the finer dust particles. The clean cotton fiber obtained and the trash are weighed separately, and the buyer can thus estimate the trash content with accuracy. The machine can be used to obtain other information. For instance, in the preliminary processes of spinning, a certain amount of good cotton fiber is thrown out as waste. If the loss of good fiber is increased by as little as one-quarter per cent, the loss on a year's running of a machine may be a very considerable item. By the use of the Shirley Analyser it can be found if the machines require adjustment to reduce loss of good fiber. (For further information, enquiries should be made to Messrs. Howard and Bullough, Ltd., of Globe Works, Accrington, Lancashire, England.)

Average hourly earnings of production workers in the Southern cotton goods industry have increased 179 per cent during the last ten years. Hourly earnings of Northern this period, according to information released by Brunswick A. Bagdon of Atlanta, Ga., regional director of the U. S. Bureau of Labor Statistics in the South.



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Cotton System Spinning Activity

The Bureau of the Census, Department of Commerce, announces that according to preliminary figures 23,811 thousand cotton system spinning spindles were in place in the United States on Oct. 31, 1948. As of the last working day of the month 21,157 thousand were consuming cotton; 1,326 thousand were consuming other than cotton, and 1,-328 thousand were reported idle. The total cotton system spinning spindle hours reported for October, 1948, amounted to 9,521 million, an average of 400 hours per spindle. For the month of September the total was 9,998 million, an average of 420 hours per spindle. During October, cotton system spinning spindles operated at 120.0 per cent of capacity* based on an 80-hour week as compared with 121.0 per cent for the month of September. Detailed figures on the activity of cotton system spinning spindles for October, 1948, by state, are shown below.

| | | Cotton system spinning spindle | | | | es | |
|--|--|--|-----------------------------------|----------------------------|-----------------------------------|----------------------------|--------------------------|
| | | | | Consur other than co | | hrs. | perated |
| Area and state | In place Oct. 31, 1948 (Thou- sands) | Active last working day (Thou- sands) | hours during month (Mil- | | hours during month (Mil- | Total | spindle in |
| (a) | | (c) | (d) | (e) | (f) | (g) | (h) |
| United States | 23,811 | 21,157 | 8,889 | 1,326 | 632 | 9,521 | 400 |
| Cotton-growing New England All other Alabama Connecticut Georgia | 4,921 486 1,821 | 4,033 415 | 1,206 110 759 98 | 304 | 99 7 3 16 | 1,305 117 762 114 | 265 240 419 234 |
| Maine | 648 | 523 | 215 | | 17 | 232 | |
| Massachusetts | | 2,263 | 641 | 133 | 46 | 687 | 254 |
| Mississippi | | 120 | 50 | | | 50 | 405 |
| New York | 269 | 224 | 68 | 15 | 2 | 70 | 261 |
| North Carolina | | 5,349 | 2,275 | 330 | 189 | 2,464 | 413 |
| Rhode Island | | 647 | 157 | 2 | 1 | 157 | |
| South Carolina | | | 2,521 | 500 | | 2,784 | |
| Tennessee | 558 | 523 | 234 | | 6 | 240 | |
| Texas | | 210 | 78 | † | 1 | 78 | |
| Virginia | 649 | | 282 | * | 19 | 301 | |
| All other | 733 | 569 | 193 | . 95 | 25 | 218 | 297 |

*Based on 20 5/6 days capacity.

"Cannot be shown separately. Included in United States and area totals.

*Less than 0.5 million hours.

Cotton Broad Woven Output Declines

Production of cotton broad woven goods during the third quarter totaled 2,270 million lnear yards, the Bureau of Census reported Nov. 21. This was 39 million yards under the third quarter of 1947 and 270 million yards below the second quarter of this year. Cotton tire cord and fabric production decreased from 79 million pounds in the second quarter to 76 million pounds in the third quarter. The 64 million pounds of rayon and nylon tire cord and fabric produced in the third quarter was four million pounds more than in the second quarter.

A total of 388,000 looms were in place Oct. 2, of which 377,000 were active on the first shift, 357,000 on the second and 194,000 on the third. Loom operation totaled

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471,000 hours, 11 per cent below the second quarter. Yarn consumed in the production of the cotton broad woven goods and tire fabrics amounted to 826 million pounds, of which 763 million pounds were cotton, 58 million pounds rayon and five million pounds other fibers.

In the following table, column one gives the number of looms, in thousands, that were operating on Oct. 2, 1948; column two refers to production in millions of linear yards (preliminary) for the period July-September, 1948; column three states the revised production figures for April-June, 1948; and column four gives the revised figures for July-September, 1947. Production figures for total tire cord and fabrics; cotton tire cord and fabrics, and rayon and nylon tire cord and fabrics are in millions of pounds.

| | Col. | Col. | Col. | Col. | |
|--|------|-------|------|-------|--|
| Total cotton broad woven goods (except tire fabrics) | 375 | 2,270 | | 2.309 | |
| Cotton duck | 7 | 54 | 57 | 41 | |
| Medium yarn fabrics (except birdseye diaper cloth) | 65 | 445 | 533 | 544 | |
| Birdseye diaper cloth | 1 | . 5 | 10 | 20 | |
| Print cloth yard fabrics | 100 | 838 | 903 | 783 | |
| Colored yarn cotton goods and related fabrics | 32 | 180 | 201 | 174 | |
| Wide cotton fabrics | 40 | 156 | 161 | 156 | |
| Fine cotton goods | 77 | 299 | 341 | 294 | |
| Napped fabrics | 16 | 119 | 132 | 123 | |
| Towels, towelings and washcloths | 14 | 80 | 99 | 89 | |
| Specialties and all other fabrics | 23 | . 94 | 103 | 85 | |
| Total tire cord and fabrics | 2 | 140 | 139 | 132 | |
| Cotton tire cord and fabrics | 2 | 76 | 79 | 74 | |
| Rayon and nylon tire cord and fabrics | | 64 | 60 | 58 | |
| | | | | | |

Deny Funds For Cotton Ordered Late

The Economic Co-operation Administration recently rejected a British request for E. C. A. dollars to cover the cost of about \$50 million of American cotton. An E. C. A. spokesman explained the cotton was ordered after May 21. On that date E. C. A. ruled that its funds could be used for cotton shipments only if E. C. A. gave advance approval for the purchases. E. C. A. did agree to pay for some \$25 million worth of cotton ordered by Britain prior to May 21 because the rule was not then in force.

The largest single consignment of American-grown cotton since the E. C. A. went into effect, 70,000 bales, was unloaded at Liverpool and Manchester, England, last month. Representatives in Britain of the E. C. A. state that more than 50 per cent of the 173,000 bales of cotton promised under the European recovery program have already been delivered. They add that by the end of the year 80,000 more bales of the staple will be landed.

Between 1919 and 1937, says a Twentieth Century Fund report, wool consumption in the United States increased from 300 million to 392 million pounds, cotton from 2.9 billion to 3.8 billion pounds, silk from 28 million to 54 million pounds and rayon yarn from eight million to 255 million pounds.

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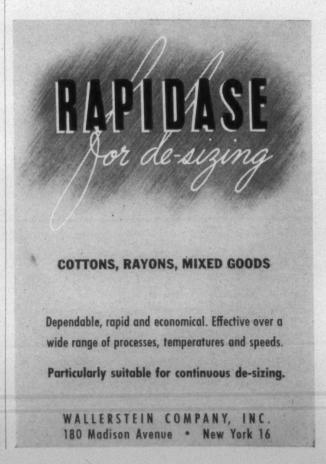
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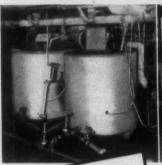
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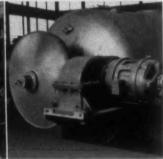
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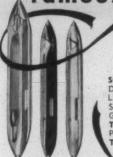
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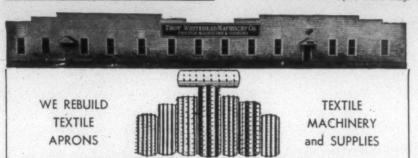
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Job as Overseer of Weaving. 25 years' experience on cotton and rayon. Can furnish good references.

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As Superintendent or Manager. Graduate of Textile Engineering, with 20 years' experi-Superintendent and Manager. Would like to make a change. Familiar with all phases from opening to finishing. Good manager of help and good references.

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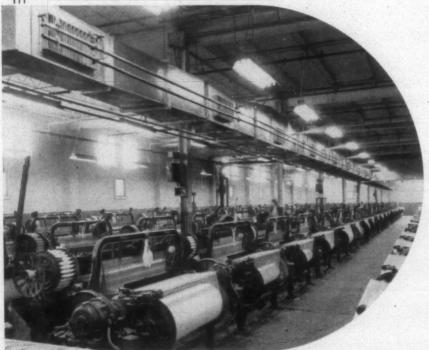
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Before Closing Down

- TEXTILE INDUSTRY HAPPENINGS AS THE MONTH ENDED -

PERSONALS

R. Frank Patterson, overseer in the bleachery of Cannon Mills Co. Plant No. 1 at Kannapolis, N. C., has been re-elected consul commander of Pinewood camp of Woodmen of the World, a position he has held more than 30 years.

William Lowndes, Jr., formerly vicepresident, has been elected president of Southern Weaving Co. at Greenville, S. C., succeeding the late J. W. Burnett. Other officers named were J. W. Burnett, Jr., vicepresident and assistant treasurer, and E. G. McCoin, secretary. These officers will serve until the latter part of January when the annual meeting of the board of directors is held and the annual election of officers is conducted.

Robert T. Stutts, for 12 years affiliated with Woodside Cotton Mills Co. as superintendent of the three plants at Fountain Inn, Simpsonville and Liberty, S. C., has, been appointed president-treasurer of Carolinian Mills, Inc., at High Shoals, N. C. Carolinian is a subsidiary of Ely & Walker Dry Goods Co. of St. Louis, Mo.

William N. Banks, president of several Georgia textile manufacturing companies and chairman of two others, was elected a director of the Trust Company of Georgia at the December meeting of the board. Mr. Banks is president of Graniteville Mills at Graniteville, McIntosh Mills at Newnan, Habersham Mills at Habersham and is chairman of the board of Atlanta Woolen Mills and the Gate City Mills Co. at East Point. He also serves as a director of Bibb Mfg. Co. in Macon and the Arnco Mills at Newnan.

OBITUARIES

S. Marshall Beattie, 62, of Greenville, S. C., a vice-president and director of J. P. Stevens & Co., Inc., died Dec. 15 at his home in Greenville following an extended illness. Mr. Beattie began his career with the Piedmont Mfg. Co., succeeding his father as president and treasurer of the firm in 1923. Upon Piedmont's merger with J. P. Stevens & Co., Inc., last year, Mr. Beattie became an executive of that firm. Survivors include his widow, a son, a sister and one brother, William H. Beattie, president of Woodside Cotton Mills Co. of Greenville.

MILL NEWS

WOODRUFF, S. C. — The check for \$448.79 from employees of the local plant of Mills Mill in the recent Christmas Seal drive was the largest ever donated by the plant, Ralph Rogers, personnel director, was in charge of Mills Mill seal sales.

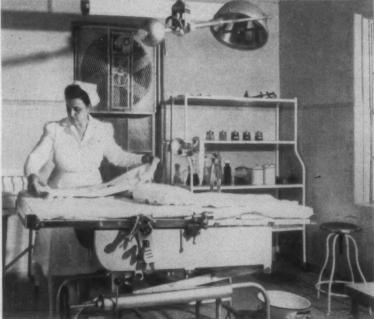
BELMONT, N. C. - Employees of Acme

Spinning Co. and Linford Mills, Inc., established a record in Christmas savings for 1948. On Dec. 3 Christmas checks totaling \$76,000 were distributed among employees of the two plants.

NEW YORK, N. Y.—Beaunit Mills, Inc., of New York was awarded a controlling

interest in the North American Rayon Corp. and American Bemberg Corp. by the Office of Alien Property Dec. 14. The award was won on a high bid of \$17,111,126 for the majority stockholdings of the plants, which were taken over by the government in August, 1947, in accordance with the Trading with the Enemy Act. North American Rayon





A FOUR-YEAR MODERNIZATION program at Russell Mfg. Co., Alexander City, Ala., has brought to realization, among many other features, a modern cafeteria, where the average cost of a meal is 21 cents, and new facilities for the Russell Hospital, maintained by the mill to serve employees and citizens of the section. More than \$1,000,000 has been spent at Russell Mfg. Co. on new buildings, additions and other improvements. Another \$1,000,000 has been used to purchase new and more efficient spinning, knitting and finishing machinery. Expenditures such as these over the years have accounted for the steady growth of the company, which, according to President Thomas D. Russell, has been made possible only by a consistent policy of "plowing the profits made in good years back into the business."

and American Bemberg Corp. are located at Elizabethton, Tenn. The plants produce rayon yarn under German-owned patents and process and have combined assets of more than \$36,000,000. Beaunit operates plants in North Carolina, New York, New Jersey and Indiana, and has a new plant under construction in Alabama.

GREENVILLE, S. C.—The Greenville Plant of Woodside Cotton Mills Co. will discontinue its Saturday operations effective Jan. 1. W. H. Beattie, president, in making the announcement did not elaborate on the reasons for discontinuing the mill's Saturday operations, but indicated that operations during the remainder of the week would not be affected.

ABBEVILLE, S. C.—Plans for immediate construction of a 70,000 square foot addition to Abbeville Mills Corp., at a cost of more than \$1,000,000, were announced Dec. 15 by Deering-Milliken & Co., Inc. The addition will include offices, research laboratories and additions to the dye plant. It will be completely air conditioned and finished with glazed tile on the interior. It is hoped that the extension will be ready for operation by April 1. Daniel Construction Co. of Greenville, S. C., will be the general contractor.

NEW YORK, N. Y.—Riegel Textile Corp., which operates plants in South Carolina and Georgia, recently announced the opening of a new sales office in Los Angeles, Calif., at 111 West Seventh Street. Van Andrews will be in charge of the new sales office which will handle all Riegel lines on the West Coast. The office is to open formally on Jan. 3.

GAFFNEY, S. C.-About 4,000 persons, including 1,600 children, attended the second annual Christmas party of the Nos. 1 and 2 plants of Limestone Mills Dec. 18. The children were presented with toys and

GREENVILLE, S. C.—Union Bleachery employees with service records of ten years or more were guests of the company Dec. 18 at a dinner and entertainment. Service pins were awarded 28 in the ten-year group, six in the 15-year group and six in the 20-year

ABBEVILLE, S. C .- Veteran employees of Abbeville Mills Corp., with service records ranging from 25 to 45 years, were honored at a dinner recently by the company. Service pins were presented by R. C. Edwards, vicepresident.

LANCASTER, S. C .- Springs Cotton Mills checks for 1948 vacation pay were delivered to employees in time for Christmas with the regular payroll checks. This year, all hourly and piecework employees who did not have a paid vacation were presented a check for two per cent of their last 50 weeks' pay. Employees who have been with the company continuously for five years received a check for four per cent of their last 50 weeks' pay; 15 years, six per cent; and 25 years, eight per cent of the last 50 weeks' pay. All Springs plants were closed Dec. 22-28.

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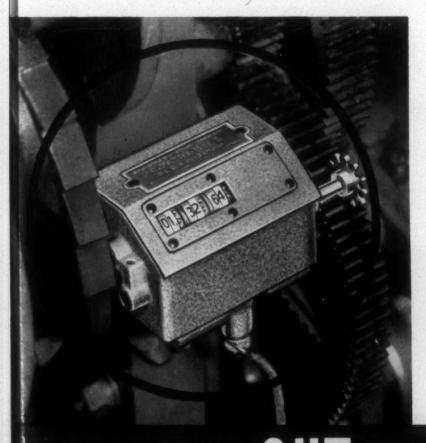
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Cut Costs ... and Losses from uncontrolled lengths ... put VEEDER-ROOT CUT METERS on all looms



SAVE LABOR in these 4 ways:

- 1. No need to put in cut marks at slasher.
- 2. No need to remove cut marks in finishing.
- No need for weaver to watch for cut marks
 ... because Cut Meter knocks off loom automatically at desired length, within reasonable tolerances.
- 4. Cut Meter is easy to set, easy to read, easy to reset to any predetermined number of yards.

SAVE WASTE in these 2 ways:

- 1. No double cuts due to weaver missing cut
- Cut lengths from looms are controlled to the consistent uniformity demanded by converters. No rejects.

TIGHTEN CONTROL in these 2 ways:

- 1. Simplify inventory control, with a Cut Meter on each loom to give instant check on work in process.
- 2. Simplify many types of finishing-operation control . . . with cuts that are dependably uniform

Veeder-Root Loom Cut Meters are made for mechanical or electrical operation, registering directly in yards or meters. Right-hand drive only. Get the whole story from your nearest Veeder-Root office.

Veeder-Root CUT Meters



APPRATEX 120

Reg. U. S. Par Or

ANIONIC SUBSTANTIVE SOFTENER FOR CELLULOSIC FABRICS

- Will not oxidize on fabric to cause discoloration or rancidity
- May be exhausted onto cellulosic fabrics from a dilute solution
- Finish shows high degree of resistance to laundering
- Compatible with other anionic finishes and with alkaline materials
- Will not discolor white goods or develop undesir able odors after ageing and pressing
- Has no adverse effect on light-fastness of dyes
- Soluble in warm or hot water

Warwick Technical advisors, with their wide knowledge of tele tile chemicals and processes, are available for consultation